A correlational study of school principals' perceptions of self-efficacy and the availability and quality of gifted programming in their schools

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A Correlational Study of School Principals' Perceptions of Self-Efficacy and the Availability & Quality of Gifted Programming in their Schools

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

by

Louis Paul Lloyd-Zannini

December 2001
A Correlational Study of School Principals’ Perceptions of Self-Efficacy and the Availability & Quality of Gifted Programming in their Schools

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Approved December 2001 by

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Thomas J. Ward, Ph.D.
DEDICATION

This dissertation is dedicated to

my lovely bride of more than sixteen years,

Linda,

without whose love, patience, encouragement, support,

and, most of all, prayers,

it could not have been completed.
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A C K N O W L E D G E M E N T S

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A Correlation Study of School Principals’ Perceptions of Self-Efficacy and the Availability & Quality of Gifted Programming in their schools

Abstract

The purpose of this study was to determine the nature and direction of the correlation between the perceived self-efficacy of school principals and the availability and quality of the programming for gifted students in their schools.

The study asked 325 public and private elementary school principals in the Hampton Roads area of southeastern Virginia to respond to two surveys, one previously normed concerning self-efficacy, and one developed by the researcher based on gifted program criteria established by the National Association for Gifted Children, to measure perceived program availability and quality.

Though no statistically significant relationship between self-efficacy and perceived program availability and/or quality was found overall, such a relationship was found specifically for principals of schools whose focus was general education, and for those whose served in private, non-faith/church-affiliate schools. It was found that schools serving 300 or more students were more likely to provide gifted programming than schools serving fewer students, and that their gifted programs
were more likely to be of higher quality than that of smaller schools. Additionally, it was determined that public schools were more likely to provide gifted programming than private schools, and that, in the cases of private schools, principal self-efficacy was positively related to the schools' gifted program quality.

Further study is needed to determine whether the findings of this study are also true for schools serving middle and high school grades, and to determine whether findings may be generalizable to other geographical areas.
A Correlational Study of School Principals’ Perceptions of Self-Efficacy and the Availability & Quality of Gifted Programming in their Schools
CHAPTER 1

THE PROBLEM

Introduction:

Even the most casual of observers, in scanning the literature of school leadership, cannot help but come to the conclusion that the emphasis within American education at the turn of the millennium has been upon changes—changes in expectations, changes in perceptions of stakeholder roles, changes in the organizational structure of schools. "School reform" has become a hot topic as educators have responded to report after report critical of the American educational system (Education Week, February, 1995). Feldhusen (1990, Fall) asserts, "public education in the United States is undergoing its greatest review and reconceptualization in history..." (p. 3). Experts have spoken: students need more time to learn (Prisoners of Time, 1994), they need small schools with dedicated staffs and high academic expectations (Sizer, 1996; Goldberg, 1993, September; O'Neil, 1995, February), they need a clear commitment from their families and communities to their education (Ravitch, 1985; Sizer, 1992, November; Barber, 1993, November), they need high standards (Mirel & Angus, 1994, Summer; Bennett, 1987; Bennett, 1988), they need morals and ethics integrated into their lessons (Wynne, 1995; Likona, 1991; Kilpatrick, 1991)—the list goes on, crucial issue after crucial issue.
Throughout it all, in almost every aspect of the discussion, one reality stands clearly—painfully so at times—apparent: effective education requires effective leaders. The work of visionaries such as Deborah Meier, James Comer, Theodore Sizer, and others has established that “effective” schools, schools in which students perceive themselves to be—and actually are—safe, in which “real learning” happens in measurable ways, in which students and parents alike are pleased with student progress, can be a reality in communities. But to do so, they must be led by persons who believe in the students, the curriculum, the teaching staff, and themselves.

Article after article, study after study speaks to the role of the principal in the formation of a learning community, and in setting and enabling the achievement of high educational goals (Hudgins & Cone, 1992; Brandt, 1992; Valentine & Bowman, 1991; Olthoff, 1992; Slatin, 1995). The principal is to be instructional leader, site manager, and community liaison (Martin, 1993; Keaster, 1995). Upon the shoulders of the principal falls the responsibility for assuring that education is occurring for all students.

Foremost among these students are those with special learning needs: those who, because of a myriad of reasons ranging from ability/achievement scores significantly different from the norm (i.e., two standard deviations or more) to physical/emotional/behavioral challenges, are singled out by legislation nationally.
(Education for All Handicapped Children Act [PL 94-142] of 1975; Individuals with Disabilities Education Act [IDEA] of 1990; Vocational Rehabilitation Act [§ 504] of 1973; Jacob K. Javits Gifted and Talented Students Education Act of 1988/2000) or within their home state for extraordinary educational services in order that they may learn. This group is immensely diverse and its needs are incredibly varied, yet the school—and therefore, the administrator—are required by law, if not by common decency, to provide for an education for each of its members. It is, at best, a daunting task.

In the midst of this disparate array of students, typically distinguished by a marked inability to learn satisfactorily in a traditional fashion at a pace typical for chronological peers, exists one group of learners similarly exceptional, yet with a unique qualifier: though capable of learning in a traditional fashion at a pace typical for chronological peers, these students cannot do so satisfactorily, because to do so would be to slow significantly their learning process. Rather than having difficulty “keeping up” with their chronological peers, this group of learners learns far more rapidly than their peers, in a manner distinctly different from them. They are the gifted, high ability learners, students whose ability to learn has distinguished them from even the most capable of their average chronological peers.
Research has shown that the effects of elimination of gifted and talented educational programs are typically negative, both for the gifted/talented student as well as for the student's parents (Purcell, 1993). Other studies have pointed out that gifted students who experience lack of understanding and support, ambivalence, and/or hostility from peers and significant superordinate others often have significant problems with both self-concept and family relationships, as well as with psychological stress-related issues such as depression and suicidal ideation (Webb, 1994; Webb & Kleine, 1993). Yet programs for high-ability learners are being terminated or cut-back across the country, especially in areas of poor economic health (Renzulli & Reis, 1991; Radin, 1991), and gifted students are being ignored or offered only limited high-quality curricular alternatives (Feldhusen, 1989a). For these students, the principal's effectiveness in exercising the role of instructional leader is crucial, for as such, the principal is, in the final analysis, either the one who will determine how the needs of this most unique cadre of students will be met within the school, or the person who will function as the students' advocate for appropriate placement in services outside of the school.

**Problem Statement:**

Because there appears to be little consensus among educators concerning the nature of giftedness and the unique needs of gifted students (Gagné, 1995; Feldhusen & Moon, 1995; VanTassel-Baska, 1992; Sternberg, 1986; Feldhusen,
1986a; Tannenbaum, 1986; Gardner, 1983; Renzulli, 1979), educational programs for gifted/talented youth vary dramatically from place to place, not only from state to state across the country, and from district/division to district/division within each state, but often from school to school within each public school district/division, and among private schools (Renzulli, 1986; Stanley, 1980; Feldhusen, 1986b). Yet research appears to support the assertion that gifted students need differentiated educational programming, especially in the areas of curricular design and instructional practices (VanTassel-Baska, 1992; Gross, 1992; Silverman, 1989; Lovecky, 1994) if they are to be challenged to perform at their highest levels of ability, and if they are to effectively be engaged in the formal education process.

Due to the reality of the apparent ambivalence inherent in the American educational system (National Excellence, 1993; Sternberg, 1996), it appears that if gifted students are to be offered an opportunity to avail themselves of appropriate educational options, those options may have to be originated at, and regardless of point of origination must be nurtured and supported at, the local building level. Accordingly, it would appear that the role of the principal in this effort is an important one, especially in terms of the amount and quality of educational leadership which s/he brings to the setting, and to the extent that s/he can be effective in the domain of instructional leadership.
Rationale:

Traditionally, the principal is seen as the educational leader in the school building (Warner & Stokes, 1987, November; Niece, 1989; Binda, 1991; Notar, 1987, November; Kanpol & Weisz, 1990, April; Murphy, 1990a). With the advent of site-based management and school restructuring, attention has focused on two primary aspects of the principalship: 1) the relationship between the principal's educational preparation (including resultant personal attitudes/dispositions/beliefs), and educational programming emphases, especially as they relate to the provision and support of programming for populations with special needs, like the gifted (Rudnitski, 1994, June; Frase & Melton, 1992, January; Gallagher, 1991, Winter; Treffinger, 1991, Winter), and 2) the nature of the relationship between the principal's efficacy—whether actual or perceived—as an instructional leader and change agent, and the nature, quality and degree of educational change/improvement within the building (Sanders, 1995; Boyd & Hord, 1994; Hoy & Woolfolk, 1993; Binda, 1991; Heck, Larsen & Marcoulides, 1990; Schultz & Teddlie, 1989; Anderson & Nicholson, 1987; Worner & Stokes, 1987, Hillman, 1986).

Studies investigating the relationship between principals' training and concerns about appropriate programming for gifted students, as well as those investigating the relationship between principals' personal dispositions toward...
gifted programming, have raised serious issues, especially in light of earlier considerations of the role of the principal in provision of both an atmosphere and a program which supports gifted/talented students. In cases where principals have displayed negative regard for gifted education, whether because of myths about gifted children (Dowies, 1989), or weakly formed notions about gifted children or gifted education—including knowledge, but not comprehension, of terms (Stuber, 1991), appropriate gifted programming was found lacking. Likewise, in situations where principals had limited knowledge—or none at all—concerning appropriate educational practices for gifted/talented students, there was a paucity of support for those students, whereas when principals had knowledge and training in the field of gifted education, such programming and support were found to be adequate to excellent (Dahlin, 1986; Hunter, 1990; Heinlen, 1994; Haeger, 1990).

Studies investigating the relationship between the principal's efficacy as an instructional leader and change agent, and the nature of educational change/improvement, indicate that substantive improvement in the educational setting requires a strong and effective leader who is able to accurately assess the school's current status, derive creative plans for growth and improvement, articulate a vision of the end state, then institutionalize that vision in corporate/schoolwide values which are reflected in the strategic plan, policies and processes of the school (Lashaway, 1997; Sanders, 1995, Nadeau & Leighton, 1996;
Starratt, 1995; Weiss, 1995; Heck, Larsen & Marcoulides, 1990; DuFour & Eaker, 1987). Other studies of principals’ efficacy and the quality/degree of educational change and improvement support a direct, positive correlation between the two: The higher the level of efficacy demonstrated by the principal, or perceived in him/her by others, the higher the level of student achievement (Gillat & Sulzer-Azaroff, 1994; Heck, Larsen & Marcoulides, 1990, Hillman, 1986), teacher performance and satisfaction (Hoy & Woolfolk, 1993; Schultz & Teddlie, 1989), and programmatic [re]design appear to be (Sanders, 1995; Binda, 1991; Valentine & Bowman, 1991).

What has not been studied is the question of whether there exists a correlation between the principal’s own sense of his/her efficacy and the quality of gifted programming—services provided students with extraordinary needs, specifically, the gifted—within that principal’s school building, if such services exist at all.

Definitions of Terms:

For this study, the following definitions of terms shall apply:

A principal — or “head-of-school” — is the on-site leader (i.e., the highest-level administrator) of an educational institution (e.g., a learning community or “school,” typically housed within a discrete building or cluster of buildings) serving pre-collegiate learners (i.e., those studying at levels NK-12) (Roeper, 1986).
Accordingly, the principal is the guardian and promoter of the school’s vision and mission, and the person ultimately accountable to parents, students, central office personnel, the superintendent, and/or the school board for the effective

1. instruction, 2. pupil success and 3. utilization of resources on that campus (Lashaway, 1997; Roeper, 1986).

**Instructional leadership** is the process of supervising and improving instruction (Hudgins & Cone, 1992). It involves identification of the leader’s personal vision for the school, transformation of that vision into a shared vision within the school community, and the agreement on procedures which will allow that vision to be reached (Lashaway, 1997b; Garten & Valentine, 1989). Included within the realm of instructional leadership are specific tasks including helping teachers to plan effectively (awareness of the role of learning objectives and the problems which may accompany them) (Juarez, 1992), stressing effective teaching elements in classroom instruction (Hudgins & Cone, 1992), serving as instructional coach (Olthoff, 1992) and/or instructional manager (Notar, 1987), and even—at times—engaging in a bit of “creative insubordination” (English, 1992) if necessary to insure that the school’s vision is achieved and its goals are met.

*A gifted student* is one who possesses a genetic predisposition to excel in one or more societally valued fields of human intellectual, social, creative and/or psychomotoric endeavors, which predisposition is nurtured.
by environment, and fully manifest, by maturity, as achievement within the top 15% of age-peers' accomplishments in the specified field of endeavor (Gagné, 1995).

Curriculum is a set of content and skills organized in an intentional pattern of learning experiences (VanTassel-Baska, 1994). Passow (1986) makes the point that curriculum is "caught" as well as taught, and that the program of learning is not just embedded in instruction, but is also implanted in modeling, something which Komarnicki (1990) calls "living curriculum."

Efficacy is a measure of the ability to cause something to happen, or to modify something which already exists. Tschannen-Moran, Wolfolk Hoy, and Hoy (1998) describe it as the answer to the question, "Do I have the ability to organize and execute the actions necessary to accomplish a specific task at a desired level?" Self-efficacy, or sense of efficacy is one's judgment of his/her ability to plan and execute a course of action that will achieve a specific, desired result (Imants & De Brabander, 1996; Bandura, 1986; Hillman, 1986). It is important to note that self-efficacy is an expression of one's self-perception of one's level of competence, and not of one's actual level of competence (Tschanne-Moran, Woolfolk Hoy & Hoy, 1998).

Educational programs are administrative structures for bringing curriculum and instruction to students (Feldhusen, 1986c).
Gifted programs, according to Feldhusen (1989), are planned program models which facilitate the interaction of gifted students with curriculum to produce learning by engaging learners in the learning process. Typically, they are comprised of curriculum [goals and objectives] (Feldhusen, 1989), a planned learning environment [a system of social support, purposive methods of instruction and interaction — i.e., content delivery — designed to facilitate advancement of learning toward curricular goals and objectives at learner-appropriate levels] (Maker, 1982), and methods of assessment and evaluation of student progress in attaining the program's goals and objectives [student product and process demonstration] (Renzulli & Reis, 1986).

Gifted education program quality is the measure of how well a gifted program may potentially meet, or is currently meeting, the unique educational needs of gifted students. Indicators of program quality include:

① curricular and instructional opportunities appropriate to gifted students,
② systematic development, implementation and management of services,
③ comprehensive services—based on sound philosophical, empirical and theoretical support—for gifted students, ④ purposeful and systematic evaluation of the program and its results, ⑤ planned nurturance of the unique affective needs of the gifted, ⑥ service delivery by highly competent professionals, specifically trained to comprehend and meet the needs of the
gifted, and appropriate assessment and identification of gifted learners utilizing multiple indicators and modalities (NAGC, 1998).

Differentiation is the deliberate notation of disparity, or the deliberate modification to meet needs. In the cases of educational programs and curriculum, differentiation involves the organization and modification of intentional instructional activities to meet the specific needs of the intended learners. Typical aspects of curriculum differentiation for gifted and talented learners focus on content depth and complexity and instructional pacing, curricular process and progress goals, and curricular issues and themes (VanTassel-Baska, 1992; VanTassel-Baska 1994). For differentiated gifted programs, foci typically include issues of grouping, infusion of technology, alternative delivery models, and meeting students' affective needs.

Research Focus/Question:

Within a school, were the availability and quality of differentiated program services provided for gifted/talented students impacted by the principal's self-perception of his/her own professional efficacy? Fundamentally, the study sought to explore whether a correlation existed between the degree to which a principal believed s/he was capable of effecting change and the quality of programmatic and curricular differentiation for gifted and talented students within that principal's
school. Additionally, the study attempted to determine ① whether, in a school, there was a difference in the availability and quality of programs available to the gifted which correlated to the degree of perceived self-efficacy in the principal, and ② whether school demographics and/or characteristics of the principal were mediating factors between self-efficacy and program quality.

Significance of the Study:

Taking into account the current emphasis on high educational standards, state and national assessment of pupil performance, national curricular emphases, and the call for educational accountability, this study can and may have a consequential impact upon approaches to the provision of high-quality programming for gifted and talented students (at least in the target population area), and upon the training of educational administrators—especially those who aspire to the principalship—in the essential nature of their role as primary instructional leaders, whose role and responsibility it is to meet the needs of all students within their schools including special populations such as the gifted.

To the literature of the field of educational leadership, the data generated by this study adds clarification concerning the role of self-efficacy in instructional leadership, and establishes a demonstrable connectivity between the principal's self-efficacy and his/her role in the provision of appropriate, quality programming for a special needs population (i.e., the gifted) within his/her school, especially in
public elementary schools whose focus is general education and in private, 
elementary schools which are not faith/church-affiliated.

For the field of gifted education, besides its findings concerning principal 
self-efficacy and its relationship to the quality of gifted programming, this study 
is significant in that it offers insight into how well gifted programs align with 
NAGC program quality standards, and presents an area in need of focus for 
 improvement.

Limitations and Delimitations of the Study:

The proposed study was conducted in a single, regional geographic area, 
Hampton Roads, Virginia. This area of southeastern Virginia is on the mid-Atlantic, 
eastern coast of the United States of America, and is comprised of the 
communities directly abutting and surrounding the lower portion of the Chesapeake 
Bay (from its point of intersection with the Atlantic Ocean to the Virginia 
Peninsula), and a limited number of those directly inland from it. The communities 
studied range in population from fewer than 8,200 persons to more than 433,000 
inhabitants, and the region—perceived and functioning as a unified entity for 
purposes of commerce and tourism—offered a market of nearly 1.4 million people, 
according to 2000 US Census data. The region's urban, suburban and rural areas 
presented a wide range of community and school settings, which when combined 
with the variety of professions practiced by its people—from family farming and
fishing to space engineering and high technology design and production—and the presence of numerous military installations (including the world headquarters of NATO and the world’s largest naval base) constituted a broad spectrum of educational experiences and possibilities. Though the study has limited generalizability because of the sample size and the restricted geographic area from which it was drawn, it is believed that it produced valid findings useful to those grappling with issues like those presented within it.
CHAPTER 2

THE LITERATURE

Introduction:

For more than a decade, educational conversation in the United States, largely dominated by the America 2000 conference of state governors and Goals 2000 legislation, has focused consistently upon making changes in and improvements to the country's system of public education, so that American students can be competitive in a world marketplace (Stedman et al., 1993; Bush, 1991; US Dept. of Education, 1991). While much attention has been directed toward the development and implementation of a more-or-less uniform set of standards by which student progress can be measured, significant attention has also been paid to instructional leadership at all levels, and to preparing teachers to be effective facilitators of learning, in order that the objectives of Goals 2000 can be reached.

With an eye toward the current national obsession with excellence—as demonstrated via student performance on high-stakes, standards-related, standardized tests at multiple grade levels—and the role of educational leaders in its development, a literature review with five primary foci was conducted. Essentially, the literature review explored ① the role of the principal as an instructional leader, ② the concept of self-efficacy as it relates to principal behavior and student achievement, ③ programming to meet the needs of gifted

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populations, differentiated instructional services for gifted students, and best practices in gifted programming.

Search for the literature review included liberal utilization of electronic databases such as ERIC, InfoTrak, WorldCat, Article First, Papers First, and Expanded Academic ASAP databases on CD-ROM/network, InfoSeek, Northern Light, Yahoo, WebCrawler, Excite! and AltaVista search engines on the Internet, as well as manually sifting through card catalogues and stacks of educational journals and compendia of research in multiple university libraries. Keywords/subjects for the searches included a wide range of terms relating to principal leadership, efficacy and attitude/predisposition, perception of the role of the principal from varied stakeholder positions, needs of high-ability/gifted learners, efficacy and program initiation and support, and many others.

Differentiated Curriculum and Instruction:

High-ability/gifted learners need instructional services and programming which is specifically differentiated for them, though the exact nature and extent of that differentiation needed to achieve at maximal levels is still the focus of ongoing study.

Publication of the study, A Nation at Risk (1983), placed the need for improvement of the American system of public education clearly in focus, and started the mechanism of change in motion. Ten years later, the study, National
Excellence (1993), affirmed what many had suspected and alleged: that America's most gifted and talented students—its most excellent learners, who learn rapidly and are usually bored with traditional classroom activities—often spend their school days with no attention paid to their special learning needs, even though, as VanTassel-Baska (1992) notes, improvement of educational quality requires that educational planners and facilitators be sensitive to the needs of all learners, and that they plan educational experiences suited to those learners. In the name of "egalitarianism," social and political goals have been advanced at the expense of student achievement (Feldhusen & Moon, 1992; Cuban, 1990), to the detriment of learners who require different levels of depth and complexity and a different pace of learning. Instruction is tied to curriculum described as "one-size-fits-all" and "teach-to-the-middle" (Goodlad, 1984; Ravitch, 1985; Tomlinson, 1995). Moreover, special programming for high-ability/gifted learners is purported to detract from educational opportunities for—and therefore, achievement of—minorities (VanTassel-Baska, 1992).

Yet, studies reveal three specific characteristics which appear to differentiate gifted learners from their chronological peers, and to require learning experiences which effectively match the level of educational challenge to the learners' personal skills (Csikszentmihalyi, 1987): ① an advanced rate of learning, the accommodation of which is critical to their development (Gross, 1992),
an ability to manipulate complex, abstract ideas and to form bridges/connections among them, which necessitates depth in primary areas of learning and transdisciplinarity in conceptualization (Gallagher, 1985; Lovecky, 1994; VanTassel-Baska, 1989b), and an ability to engage in problem-finding, problem (inter)action, and problem-solving which is best developed in the challenging and stimulating environment afforded by consistent, daily interaction with cognitive peers on tasks which stretch their abilities (VanTassel-Baska, 1992b; Sternberg, 1985).

That differentiated instructional services and programming are necessary to meet the needs of high-ability/gifted students seems evident. What appears to be open to debate—even at this juncture—is the exact nature of the services required. While some maintain that heterogeneously grouped classrooms with enrichment activities available to the gifted (Renzulli, 1986; Renzulli & Reis, 1991), or with learning processes attuned to specific learning styles and modes of information acquisition (Gardner, 1983) are sufficient, the preponderance of evidence appears to point in a different direction. In fact, the work of Passow, Tannenbaum, Carroll, Feldhusen, Sternberg, Gallagher, VanTassel-Baska and others over the past fifteen years seems to support the assertion that gifted learners require learning experiences which integrate a differentiated curriculum, and opportunities for meeting their affective needs.
Within the structure of VanTassel-Baska's *Integrated Curriculum Model for Gifted Learners* (1993b), one finds three specific recommendations for curricular differentiation for gifted learners, all of which are consistently and substantially supported by the work of others, as shall be seen in the remainder of this section. Within these three areas, one can also find the framework for planning appropriately differentiated learning experiences and programs for high-ability/gifted learners. A description of these dimensions follows.

In the area of curricular content, there must be compression and acceleration of instruction—in keeping with the "principle of economy" (VanTassel-Baska, 1989b)—through the use of instructional methodologies such as diagnostic-prescriptive teaching (DSP), which not only permit requisite compression and acceleration of learning, but which also encourage progressive growth and development, as well as providing high levels of challenge necessary for sustained engagement of gifted learners (VanTassel-Baska, 1994; Csikszentmihalyi, 1987) in order to accommodate both learning at a pace different from non-gifted peers (Gross, 1992), and variations in learning pace among students possessing differing levels of giftedness (Lovecky, 1994). Additionally, since high-ability learners are capable of manipulating complex concepts and of determining interrelationships among those concepts (Gallagher, 1985), there should be complexity of curricular content for gifted learners, in order to provide exposure to systems of knowledge.
with their unique paradigmatic perspectives, to encourage habits of mind peculiar to those systems, and to promote generalization across systems (VanTassel-Baska, 1995; VanTassel-Baska, 1994). But acceleration and compression provide more than the cognitive stimulus needed by the gifted. They also afford significant-but-often-forgotten affective/socio-emotional benefits and in so doing, present an initial guideline for the development of high quality gifted programs (Lovecky, 1994; Gross, 1992; Shore, Cornell, Robinson, & Ward, 1991; Csikszentmihalyi, 1990).

Csikszentmihalyi (1990) indicates that gifted persons are capable of dealing successfully with, on average, about twice as much challenge as their non-gifted peers. Therefore, both curriculum and programming for the gifted must include acceleration in order to sufficiently motivate the gifted to succeed and to exercise their gifts at high levels of maturity (VanTassel-Baska, 1992b; Bloom, 1985; Dweck & Elliot, 1983).

Curricular process and product goals are the second area of differentiation recommended by VanTassel-Baska's model. Gifted students are able to deal with complex concepts, to readily manipulate ideas, and to find, interact with and solve problems (Gallagher, 1989; Gallagher, 1985; Sternberg, 1985). Therefore, appropriately differentiated curriculum for gifted learners provides them with the opportunity to manipulate material at high levels of complexity (VanTassel-Baska, 1995), promotes high-order thinking skills through the use of models such as Paul's
(1993), and affords substantive learning through the creation of knowledge and
"real-life" application and product connections (VanTassel-Baska, 1995; VanTassel-
Baska, 1992b). Additionally, appropriately differentiated curriculum for the gifted
promotes inter/transdisciplinarity, allows for learner diversity, encourages
independent decision-making—and thus a personal investment by the learner in the
process—(VanTassel-Baska, 1994), and emphasizes both the intrapersonal aspects
of the learner's experiences (through metacognition), and the interpersonal ones
(including communication and relational skills) (VanTassel-Baska, 1989b), thus
supporting the social and emotional needs which present as the result of the
characteristically asynchronous development of the gifted (Silverman, 1993a;
Piechowski, 1989). Via the interwoven emphases across domains, the focus upon
appropriate processes and products offers the second significant guideline for
gifted programming: depth and complexity.

Finally, curricular issues and themes form the third area of differentiation
suggested by VanTassel-Baska. Dabrowski (1938) suggests that because of their
characteristic intellectual, emotional, creative, physical, and/or sensual energies,
gifted students often exhibit an intensity which manifests in a predisposition to
care deeply about people and events, about causes and effects, about the "great"
concepts, issues, and themes which underlie their knowing and their very being
(Silverman, 1993). Because of this, curriculum for the gifted must address major
concepts, themes, issues, and ideas which have guided the development of civilization, and which apply not only within specific disciplines, but across them (VanTassel-Baska, 1995; VanTassel-Baska, 1994). In like fashion, programs for the gifted must also address major themes, issues, ideas and concerns, must be conceptually sound, and must promote inter- and transdisciplinarity.

**Attitudes towards Gifted Programming:**

While there appears to be a paucity of research concerning the relationships between administrators' attitudes and predispositions—be they because of past or present experience with, or exposure to, gifted persons and/or programs—and the level of support, as evidenced through the nature and extent of such programs, given by those administrators to programs within their buildings, and while many of those studies which have been done have been of essentially limited utility and/or generalizability, the same cannot be said concerning attitudes and predispositions based upon education concerning the gifted.

Research reveals that the basis of negative opinions concerning giftedness and the needs of the gifted is often myth, rather than fact. In a study of more than 300 Texas principals, Dowies (1989) discovered that there was widespread agreement with statements indicating that gifted students need little or no additional assistance, that acceleration of the gifted is harmful, that differentiated services for the gifted are elitist, and that all students are gifted in
some way. Most damaging, however, was the belief that—contrary to what this 
writer has encountered in the practice and literature of the field—programs which 
are good for the gifted are good for all learners. Ten years earlier, a study by Mills 
& Berry (1979) of 857 decision-makers related to programs for the gifted revealed 
that these same myths were widely thought true by educators as well as members 
of communities. In fact, their study demonstrated that typically, only parents and 
teachers of the gifted held positive views of specialized services for those 
students, and that they were often frustrated in attempts to convince principals 
and curriculum specialists of the importance of, and need for, such services and 
concurs, and adds that even some of the educational reforms being espoused then 
(and now, as well) are highly indicative of what he calls "our reluctance to be 
excellent" (p. 13), and lead to promotion of programs which are at best neutral, and 
at worst adversarial toward, the needs of the gifted.

On the other hand, as early as 1963, researchers such as Wiener & O'Shea, 
who, after surveying more than 1,670 university faculty, principals, teachers, and 
graduate students, found that the more one knew about gifted students and their 
needs, the more one was disposed to look favorably upon differentiated services 
for those students, have been recommending that there be more education about 
the gifted and their needs. Nicely, Small & Furman (1981) reported that, of 145
teachers of gifted students involved in pull-out programs, as many (36%) perceived these services as intrusive and making their jobs more difficult, as perceived them as helpful (36%). They encouraged principals to develop programs to educate their teachers concerning the need for, and value of, such services, a recommendation also arrived at by Cavin (1980) in her study of more than 225 administrators, teachers, and parents.

But perhaps nowhere does the connection between education about the gifted and support for programs for the gifted reveal itself than in Rudnitski's (1993) study of 54 graduate fellows who participated in the Graduate Leadership Education Project. When surveyed, 38 former fellows (1977-1981) responded. Of these, 34 had earned doctoral degrees and the remainder had earned a master's degree in a program which not only exposed them to extensive study and research in determining and meeting the needs of the gifted, but which instructed them in a fashion appropriate for gifted students. Virtually all were, at the time of the study, actively involved in gifted education and advocacy at the local, state, and national levels, serving as administrators and curriculum specialists, program coordinators, advocacy group leaders (including five then serving on the board of the National Association for Gifted Children), and as consultants to the courts and legislature. It is clearly apparent that the more a principal knows about the needs
of the gifted, the more s/he is inclined to support instructional services and
programs differentiated to meet their needs.

Additionally, research also appears to affirm a related, and equally important
conclusion: that administrative attitudes and behaviors directly affect the success
or failure of an organization and its programs, largely because of the immense
power—real or perceived— which the administrator exerts over the organization.
To the extent that schools, as organizations, provide program services at some level
to all their students, and some of those students are members of populations with
special needs, one may logically infer, to at least a limited degree, that—as
administrator—the principal’s attitudes and behaviors concerning those populations
will, therefore, have an impact on the nature and quality of those programs, and
their subsequent success or failure.

Kahn’s (1993) study/experience as a participant-researcher in a social
service agency, though clearly limited in scope, indicated the intensity of impact
that a leader can have on the organization. In his attempt to determine if a leader’s
personality and/or management style impacted the relationship between leader and
staff, he became “stuck” in a relational difficulty with the administrator, and
experienced firsthand how clearly the leader’s attitude affected support for what
subordinates were doing and its likelihood of success.
Kahn's observation is solidly supported by the data generated in the 1990 study by Heck, Larson, & Marcoulides which sought to test a theoretical, causal model which measured the impact of principals' behaviors (rooted in prior knowledge and experience) on student achievement. Their surveys of 118 principals and six each of their teachers (selected at random), utilizing instrumentation created and normed by Larsen (1987) and Jöreskog & Sörbom (1984), clearly revealed a direct, causal connection between the attitudes and behaviors of the principal and the academic performance of his/her students.

A similar study by Gillat & Sulzer-Azaroff (1994) focused on the effects of the principal's interaction with staff on student performance, again confirmed Kahn's observation: The active involvement and interest of the principal (i.e., positive predisposition) caused an increase in teachers' rates of student praise, feedback, and goal-setting, which, in turn, promoted a significant increase in the quality of student performance. So also did Boyd & Hord's (1994) study of the impact of the principal's sense of purpose/direction (i.e., positive predisposition and knowledge) and interaction with staff (i.e., attitude) on school culture. Their findings, based on interviews with principals, all their full- and part-time teachers, office staff, selected parents and members of the community, indicated that principals can shape—and even re-invent—school culture, and its consequent manifestation in academic emphases and programs.
Further support for the assertion that the principal's attitude and predispositions, as well as knowledge, have a direct affect on program support and development come from the studies of Binda (1991) and Niece (1989). Niece set out to determine if there was a commonality among past influences upon, and current sources of advice and information utilized by, successful instructional leaders. Through qualitative analysis, he was able to determine that principals who function successfully as educational leaders and trainers of educational leaders share common characteristics, including significant, positive, past educational experiences and training, and strong, positive dispositions toward the training of subordinates as instructional leaders. As such, their prior knowledge and current attitudes/predispositions played a critical role in the development of instructional programming. Binda (1991) surveyed principals and teachers of six schools which had recently implemented a new curriculum successfully, and found that the principal's leadership style and personal investment in the implementation were key to success.

So, though the much of the literature supporting the impact of a principal's attitude, experience, and predispositions on practice is not directly related to the gifted, it is none the less important to this study on two counts. First, and perhaps most obviously, since self-efficacy is a manifestation of an attitude and predisposition, the ability to link it—perhaps even causally—with teacher behavior,
student success, and programmatic/curricular change, is an important one.

Secondly, since the concept of self-efficacy includes as a factor the issue of awareness of past performances and events, the ability to also identify such prior knowledge as an intervening variable in the exercise of instructional leadership opens the door to potential association of efficacy with programmatic development and support.

*Gifted Program Development—Best Practices:*

What comprises "best practice" within the field of gifted education—based upon attributes identified by research, and reported in the literature? The literature supports the need of specifically differentiated programming for gifted learners, who fare less than optimally in classrooms grouped heterogeneously according to the chronological age of the students. Specifically, there is the need for a quicker pace of learning, differentiated depth and complexity of subject matter, and a supportive social system within which the learner may thrive (VanTassel-Baska, 1992; Feldhusen & Moon, 1995, Newmann & Wehlage, 1993). Therefore, grouping and acceleration, accessibility, participant identification, co-curricular opportunities/support for gifted learners, and program direction, support and evaluation (*NAGC, 1998*) are all areas of focus when looking to determine best practice.
At all grade levels, other than not having any programmatic accommodation, for the gifted student, integration in homogeneously grouped classrooms is the least desirable option, since within this setting significant differentiation is rarely offered. Enrichment—a process of providing additional/appended/extended material to that normally studied in classes, as advocated in the Renzulli (Renzulli & Reis, 1986) enrichment triad model—or multiple-intelligence type instruction, which addresses student learning styles and modes of data acquisition and/or interaction, as proposed by Gardner (1985)—both good for all students, but demotivating and repetitious for the gifted—are typically the mode of accommodation, sometimes with a "gifted resource teacher" being available for some instructional and planning assistance for the teacher (VanTassel-Baska, 1992; Feldhusen & Moon, 1995; Slavin, 1987, 1990a, 1990b; Vaughn, Feldhusen & Asher, 1991; Allen, 1991; Rogers, 1991). But enrichment, though widely utilized, is not appropriate as a sole mode of differentiation, since it is offered in a heterogeneous setting, at chronological age grade, and involves non-cognitively matched peers, thereby bypassing pace of learning and depth of investigation modifications appropriate to the gifted. (Borland, 1997). Pull-out programs serve gifted learners better than heterogeneously grouped classrooms, because students are able to interact with cognitive peers at accelerated pace on higher-level material at least part of their educational time. Advanced placement (AP) and pre-/international baccalaureate
(Pre-IB/IB) programs at the high school level, and pre-advanced placement (Pre-AP) classes at the middle school level share some of the attributes of pull-out programs at lower grade levels, providing either part-time grouping with other high-ability/gifted learners, or full-time grouping with other highly-motivated and/or high-achieving/talented (but not necessarily gifted) students.

Of all the options at all levels, a full-time program specifically differentiated for the gifted—whether offered in free-standing or school-within-a-school format—represents best practice for gifted learners because cognitively appropriate material can be offered at an accelerated pace in an atmosphere which provides both challenge and affective support for the gifted student (VanTassel-Baska, 1992; Feldhusen & Moon, 1995; Slavin, 1987, 1990a, 1990b; Silverman, 1989).

Acceleration quickens the pace of learning through the use of diagnostic-prescriptive teaching and other modes which better accommodate the gifted learner's needs (VanTassel-Baska, 1992; Lovecky, 1994; Csikzentmihalyi, 1990), and coupled with accurate matching of cognitive and affective peers—as is the case in a full-time program—provides the most appropriate curricular and instructional program for gifted learners because content and learning facilitation at the cognitive and affective level of the learner are prescribed, because the pace of interaction with new learning is quickened, and because depth of investigation & interaction with substantive materials is provided. (VanTassel-Baska, 1994, 1992;
Sternberg, 1996a). This is especially true at the high-school level, since they allow for concentration on, or immersion in, a specific academic discipline, for mentorship opportunities within students' selected career opportunities, for exploration of multiple career areas and for dual-enrollment in college courses (or substitution of those higher-level courses for high school credit), as well as for meeting the affective needs of the gifted student (VanTassel-Baska, 1992; Feldhusen & Moon, 1995; Slavin, 1987, 1990a, 1990b; Shore, Cornell, Robinson & Ward, 1991; Lovecky, 1994; Gross, 1992; Csikzentmihalyi, 1990; Dweck & Elliot, 1983; Bloom, 1985).

Since the affective characteristics of the gifted are observably and markedly different than those of the general education population (Baska, 1989; Silverman 1989; Silverman1993a; Lovecky, 1993; Shore, Cornell, Robinson & Ward, 1991), so also are their affective/social needs. Meeting the affective needs of the gifted, something often overlooked by gifted programs (Coleman, 1995; Silverman, 1993a; Shore, Cornell, Robinson & Ward, 1991; VanTassel-Baska, 1989a), is another indicator of best practice in gifted program development.

Formal counseling concerning educational possibilities and choices is the most basic counseling need of the gifted, followed closely—and perhaps even superceded by middle grades—by career counseling (VanTassel-Baska, 1993a; Silverman, 1993b). Yet many gifted programs do not offer even this level of service to their participants (VanTassel-Baska, 1989a).
Formal opportunities to meet for affirmation, encouragement and sharing of concerns is the next level of counseling services needed for gifted students (Colangelo & Peterson, 1993; Silverman, 1993c; Silverman, 1993d; Shore, Cornell, Robinson & Ward, 1991). These counseling opportunities, both individual and group, allow gifted students to deal with the issues caused by the asynchrony of development of cognitive and affective skills, and with the many issues caused by the exceptional levels of sensitivity and concern often expressed by the gifted child/adolescent.

Finally, there is the need for informal opportunities for the gifted to meet in extra- and co-curricular, as well as strictly social activities. Because many gifted youth display a tendency toward working independently (Baska, 1989), it is imperative that the school provide multiple opportunities for them to associate with cognitive and affective peers.

Participant selection is another aspect of best practice which must be considered in program development. Though historically participation in programs for the gifted has been limited to those who scored at or above the 97th percentile on intelligence (IQ) tests, research and practice since the mid 1980s has leaned toward the use of multiple indicators in choosing participants for gifted programs (VanTassel-Baska, 1991). Project Mandala (Ward et. al., 1992) demonstrated the importance of the use of non-traditional indicators along with traditional ability...
indicators in the identification of participants. Gagné’s work (1995) has indicated that gifted students can be—and are—identified successfully by teachers, peers, and even self-nomination. Expanded definitions of giftedness, whether categorical (Marland, 1992) or unitarily intellectual (Sternberg, Ferrari, Clinkenbeard & Grigorenko, 1996; Gagné, 1995; Gardner, 1983) also require going beyond the IQ/general $g$ indices (Sternberg, 1996b; Freidman, Robinson & Porter, 1994; Borland & Wright, 1994; Osborne & Byrnes, 1990). Therefore, programs which utilize multiple indicators of giftedness for identification of participants are considered to be of higher quality than those utilizing only one indicator.

Finally, one must consider the actual operation and evaluation of the gifted program. Teachers and administrators working with gifted students must be aware of the unique needs of the gifted—both cognitively and affectively—and of their often asynchronous development, and must have the training necessary to meet those needs (NAGC, 1998; Silverman, 1993a; Silverman, 1993c; Shore, Cornell, Robinson & Ward, 1991; VanTassel-Baska, 1989a; VanTassel-Baska, 1989b; VanTassel-Baska, 1989c). Additionally, there must be regular, ongoing and accurate evaluation of gifted programs (NAGC, 1998; Feldhusen & Moon, 1995; Feldhusen, 1989b) to assure that those programs are meeting the needs of those which they serve.
Principals as Instructional Leaders:

The answer to the question of a principal's instructional impact in a school appears to be affirmative (Worner & Stokes, 1987). To the educator with more than a few days of experience, it is no secret that programs often "fly or die" based on the principal's support, be that support in the form of allocation of funding, staffing, space and/or material, or just an occasional "Atta’ boy!" for a job done—well or otherwise. Fortunately, this experience is substantiated by the literature.

Fullan & Stiegelbauer (1991) assert that if the principal is not the one leading the school culture and changes within that culture, then improvement will not happen, an assertion supported repeatedly by principals (Valentine & Bowman, 1991). As many schools continue their transition to local—that is, site-based or school-based—management (Myers & Stonehill, 1993; Glickman, 1992), the dual role of the principal as both educational leader and manager continues to expand and to evolve. Principals are now expected to be collaborative leaders who verbalize the school’s vision, promote and protect its values, set a tone of openness, listen well, act decisively—but-fairly, and promote autonomy—both for learners and instructors (Marsh, 1997; Lashaway, 1997b; Evans, 1995; Bergman, 1992; Grace, Buser & Stuck, 1987; DuFour & Eaker, 1987; Anderson & Nicholson, 1987), while at the same time serving as strong, independent leaders, particularly in the area of instruction.
They are to be agents of change, and yet they are to recognize and applaud what has been accomplished and maintained over time (i.e., the status-quo) within their schools (Walker & Vogt, 1987). It is, at best, a situation with the potential to promote serious role confusion (DuFour, 1999; English, 1992), since the very attributes which are the hallmarks of site/school-based management and participatory decision-making—the sharing of authority and responsibility (Kessler, 1992)—may also contribute to a strengthening of the principal's power base, and the reinforcement of a Machiavellian leadership mode (English, 1992). Principals are expected to embrace the paradox of these competing expectations (Deal & Peterson, 1994), to be both forceful leaders and enabling ones (Kaplan, 1996).

Within this environment, the level of expectation for quality of principal performance is high, matched only by the breadth of expectation concerning roles in which the principal is to excel, and to develop and demonstrate expertise (Ohde & Murphy, 1993). Of these many roles, two appear to dominate: the principal as participatory/collaborative manager, and the principal as instructional leader.

Collaborative governance/management is espoused as the professional behavior which empowers principals to break away from being "superprincipals," and allows them to find satisfaction and contentment in their administrative position while still effectively serving as leaders in their schools (Keaster, 1995; Chamley, McFarlane, Young & Caprio, 1992; Frase & Melton, 1992). Foundational to this
behavior is the ability of the principal to effectively utilize participatory management, especially in strategic planning, goal setting, problem solving and instructional planning (Lashaway, 1997b; Nadeau & Leighton, 1996; Sanders, 1995; Starratt, 1995; Keaster, 1995; Weiss, 1995; Chamley, McFarlane, Young & Caprio, 1992; Frase & Melton, 1992; Garten & Valentine, 1989). Participatory management requires that those who will be impacted by a decision have a role in the decision-making process (Roeper, 1986), that the principal will seek out stakeholder perceptions and participation not only in the making of decisions or solving of dilemmas, but also in the identification of needs, issues and concerns, and that the principal will serve as a facilitator of communication and guardian of the communication process, especially in times of conflict (Lashaway, 1997a; Sanders, 1995; Chamley, McFarlane, Young & Caprio, 1992; Frase & Melton, 1992; Roeper, 1986). In the case of the principal of a school for gifted learners, participatory management must be practiced at a level of high art—as collaborative administration wherein the hierarchical model is turned on its side, and where the true nature of the school as a community of learners is lived at all levels of daily interaction (Roeper, 1986; Dart, 1986).

The principal’s role as instructional leader is tightly interwoven with his/her role as collaborative or participatory manager, and each serves as a source of synergy for the other. Within this role—which Murphy (1990b) called the
education production function of the principalship—are two specific areas of responsibility, curriculum coordination and instructional supervision, each of which is perceived by the school community and community at large as crucial in the success of the school (Marsh, 1997; Murphy, 1990b).

As curriculum manager, the principal is required to oversee the process of determining learning goals for students, and to enable those goals to be met. Specifically, the principal is expected to monitor eight distinct aspects of the curriculum, ranging from amount, focus, sequence, breadth and depth of content to alignment of curriculum—both internally and with standards, and to insure that students have the opportunity to interact with curricular content in an orderly, planned fashion (Binda, 1991; Murphy, 1990a). Yet, the curriculum of the school goes beyond its documented learning goals and plans—what Eisner (1989) calls overt curriculum—beyond its hidden curriculum (Eisner, 1979), those implicit/unstated assumptions, values and norms which comprise the school’s “world view,” and which are conveyed through attitudes espoused—such as punctual completion of assignments (work ethic), the recitation of the Pledge of Allegiance (patriotism) and adherence to school rules and regulations (conformity)—beyond its social (interpersonal) and masked (academic content taught in non-traditional ways) curricula, to its pragmatic curriculum (actual content taught, as opposed to content planned) and its unofficial curriculum (content important to the teacher, but not
included in official curricular materials), all of which comprise the school's enacted
curriculum (Kanpol & Weisz, 1990; McCutcheon, 1982). If the principal is to be the
school's educational leader, s/he must be aware of all aspects of the enacted
curriculum, must understand the kinds of content and meaning being conveyed to
students though it, and must monitor its interface with the overt curriculum,
assuring that there is consistency and alignment (Kanpol & Weisz, 1990). As Grace,
Buser & Stuck (1987) found in their study of 13 recognized, outstanding principals,
this required that the principal be aware of new developments in curriculum, that
s/he participate in regular curriculum reviews with faculty, and that s/he reward
faculty efforts to improve the curriculum.

Critical to the principal's success in the curricular management role is the
nature and quality of his/her performance as the school's instructional leader, for
it is in this role that the principal will be able to have the most direct and
permanent impact on the school's enacted curriculum. Whether for good or for
bad, the principal has traditionally been expected to exercise a leadership function
in the area of instructional delivery (Marsh, 1997). From the initial hiring of
instructional staff through their evaluation, from planning and coordinating
inservice opportunities for staff to brainstorming and modeling new instructional
methodologies with them, the principal is—or should be—actively involved in
assuring that effective facilitation of learning occurs within the school (Heck,
Larsen & Marcoulides, 1990). The principal is expected to empower teachers

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(DuFour & Eaker, 1987), to establish high expectations concerning instruction (Frase & Melton, 1992), to involve faculty in development of common procedures for moving toward the school's vision (Garten & Valentine, 1989), to help teachers to plan and to value planning (Juarez, 1992), to stress effective and efficacious elements in facilitating learning (Hudgins & Cone, 1992), to serve as instructional coach (Olthoff, 1992), to provide a sustained, coherent, structured program of professional development for teachers (Riggs & Serafin, 1998; Niece, 1989), and to evaluate instructional planning and delivery in a fair and equitable fashion (Gillat & Sulzer-Azaroff, 1994; Notar, 1987). In addition to these duties, the principal is also relied upon to protect instructional time, to keep adequate supplies of instructional materials available, and to set the tone for a school culture which provides a safe and orderly work environment, strong faculty collaboration and cooperation, and opportunities for meaningful interaction among students (Marsh, 1997). Surely, both the scope and the level of expectations placed upon the principal in the area of instructional leadership affirm that s/he is, indeed, capable of impacting educational practice, and of initiating and supporting appropriate services for all learners.

**The Concept of Principal, Teacher, and Student Self-efficacy:**

The work of Bandura (1989, 1988, 1986, 1981) is regarded by many to be seminal in the study of self-efficacy and its relationship to self-agency, self-
control, cognitive development and function, and personal achievement. Bandura (1993) maintains that self-efficacy is a key factor in motivation, and that those who perceive themselves as efficacious will continually set higher goals for themselves, will cope better with negative experiences in the process of reaching toward a goal, will think more efficiently, and will tend to suffer less depression than those who do not perceive themselves as such.

Studies conducted by Zimmerman, Bandura & Martinez-Pons (1992) and Zimmerman & Bandura (1992) present strong evidence in support of the role of self-efficacy in student self-regulated cognitive development. Initially-low-achieving students who believed that they could effectively work through challenges to achieve their goals were more able to consistently and persistently apply self regulatory skills in order to succeed at academic tasks than peers who did not express a sense of self-efficacy, and students who were able to persist through difficult tasks such as learning to write effectively because of their perceived self-efficacy experienced not only growth in writing-dependent curricular areas, but also in personal standards for writing, personal satisfaction through writing, and academic goals and attainment. Thus, students who believe that they can accomplish a goal appear to be more likely to set goals, to attempt to achieve them, to overcome obstacles on the path to achievement, and to actually accomplish their goals than those who do not regard themselves as efficacious.
Just as students who believe themselves to be efficacious tend to be more successful students than those who do not, so also teachers who believe themselves to be efficacious approach the task of instruction differently from colleagues who do not believe themselves able to effect change. Whereas those with low sense of instructional efficacy tend to rely on a custodial orientation which stresses external inducements and negative sanctions to engage students, those with a high sense of instructional efficacy tend to support the development of students' intrinsic interest and academic self-direction (Woolfolk & Hoy, 1990). Those who possess a high sense of instructional efficacy invest more classroom time in academic learning, provide students experiencing difficulty with positive feedback and needed assistance, and generally provide high levels of encouragement for student accomplishment, whereas those with a low sense of instructional efficacy tend to spend less class time on academics, quickly give up when students experience difficulty learning or do not exhibit mastery rapidly, and criticize students for their failures, thus setting in place an atmosphere likely to undermine students' sense of efficacy and their subsequent cognitive development. (Gibson & Dembo, 1984).

Simply stated, if the teacher believes that s/he is personally efficacious (i.e., believes that s/he can accomplish personal goals), if s/he enjoys teaching, and if s/he believes that s/he is instructionally efficacious, then s/he will be highly
effective in the classroom, and appear to be the most receptive to the implementation of new instructional practices (Guskey, 1988). Perhaps this is why, as Ashton & Webb (1986) reported, teachers' beliefs concerning their instructional efficacy serve as accurate predictors of student achievement in mathematics and language arts. After all, as Bandura (1997) asserts, the self-assurance with which persons approach tasks—especially difficult tasks—is often the determining factor in whether they make good or poor use of their capabilities. If they doubt themselves and their abilities, those doubts can easily override even the best of skills. To this, Tschannen-Moran, Woolfolk Hoy and Hoy (1998) add their finding that most of the time, slightly overestimating one's actual abilities has a positive effect on performance.

Recent study in the field of teacher efficacy has raised questions concerning the long-assumed relationship between self-efficacy and Rotter's (1966) notion of locus of control. Bandura's (1997) work proposes data which he claims demonstrate that self-efficacy and locus of control are not essentially the same phenomenon measured at differing levels of generality, and asserts that there is little or no empirical relationship between the two. Whereas self-efficacy has been seen to be a strong predictor of behavior in teaching, locus of control has shown itself as far less reliable (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998; Bandura, 1997).
Also of interest are the findings of Guskey (1987) in which he asserts that positive and negative performance expectations and their influence on perceptions of efficacy are representative of separate dimensions and not opposite ends of a single dimension/continuum. Essentially, teachers assume greater responsibility for positive results than for negative ones, and are more confident in their ability to produce a positive result than they are in their ability to avoid or circumvent a negative one, (Tschannen-Moran & Hoy, 2001), a finding in keeping with Bandura’s sense of the difference between efficacy expectations (“I can orchestrate the necessary actions to get this to happen.”) and outcome expectations (“I expect this consequence to arise from this action at this level of performance.”) (Bandura, 1986).

Guskey’s later work with Passaro (1994) adds yet another question to the whole issue of self-efficacy and teacher performance — that of whether the distinction between internal and external causality, made in both locus-of-control and attribution theories of motivation, accurately reflects a single dimension or two distinct dimensions. Their research led them to state that items typically identified as indicative of internal and external causality were more accurately representative of teachers’ perceptions of different independent factors, namely personal power, influence and impact on teaching (as opposed to “internal
causality"), and perceptions of influence, power and the impact of elements outside their scope of control (i.e., the classroom) (Tschannen-Moran & Hoy, 2001).

The questions raised by these recent studies of Bandura (1997), Guskey and Passaro (1994), Tschannen-Moran and Hoy (2001) and Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) in the field of teacher efficacy, though not supported by similar studies among educational leaders/principals, nevertheless relate to the role of principal self-efficacy and its impact on teachers. How do the role of the principal, certain principal behaviors, and principal self-efficacy beliefs actually impact teacher performance and student achievement.

If student perceptions of self-efficacy can enable even underachievers to succeed academically, and if teacher perceptions of self-efficacy can be shown to promote student achievement, can the principal’s perception of efficacy positively impact the school community? Again, the answer appears to be, “Yes.” Hoy & Woolfolk’s (1993) study of 179 teachers randomly selected from 37 elementary schools indicated a positive correlation between a healthy school climate (defined as one where there was a strong emphasis on academics, and a principal who possesses influence with superiors and is willing to use it on behalf of his/her teachers) and teachers’ instructional efficacy. Organizational factors which helped teachers to manage and teach students (i.e., principal support) contributed positively to the individual’s sense of instructional efficacy.
On the other hand, principals who do not provide teachers with consistent feedback, encouragement and support tend to demotivate the teachers and cause them to question their own efficacy (Hipp, 1997), as do principals who perceive themselves to be instructional leaders, but who are not perceived as such by their faculty (typically because of lack of support/encouragement), according to Anderson & Nicholson (1987). In a similar vein, Warner & Stokes (1987) found in a survey of more than 300 Virginia principals, that even those who envisioned themselves as instructional leaders, but felt that district and state policies severely limited their ability to affect change, reported lower levels of learner accomplishment in their schools than those who did not feel so constrained.

Sanders' (1995) research utilized two rating scales, a modified version of Hillman's Principal Self-Efficacy Questionnaire (1986), and extracted segments from Ebmeier's five-battery Diagnostic Assessment of School and Principal Effectiveness (1988), seeking to determine if there were factors which influenced principals' perception of self-efficacy, and whether principals' self efficacy impacted the initiation of innovation. Twenty-eight secondary schools were involved in the research, with a target of 20 completed sets of documents. In each school, the principal was asked to complete the Hillman instrument as amended by Sanders, and to choose 20 teachers in the school to complete the Ebmeier survey.
Additionally, a copy of the Ebmeier document was mailed to the supervisor of each principal, who was asked to rate the principal's performance.

Sanders (1995) expanded the Hillman instrument while making only a slight change in the initial format of the instrument. Rather than presenting a stem statement and four responses to which the participant was to indicate agreement on a Likert scale continuum of Strongly Agree to Strongly Disagree, Sanders presented the stem statement and each of its conclusions as a separately numbered item, and required that the participant blacken on a Scantron answer document one of five letters corresponding to the level of his/her agreement with the statement (A=Strongly Agree, B=Agree, C=Unsure, D=Disagree, E=Strongly Disagree). Thus, though the format of the document was somewhat changed for the initial sixty-four items, Sanders' findings on these items corresponded with and supported those reported by Hillman.

Where Sanders' instrument varied from Hillman's was in the addition of four sections, the first of which asked principals to indicate how they believed that their staff would rate them (using a five point Likert scale of Poor to Excellent) on their administrative, communication, and instructional leadership abilities, another of which asked participants to indicate how they believed that their supervisor would rate them on the same list of abilities, the third which asked specific questions about programs initiated and/or adopted by the principal, and the fourth
of which collected demographic information about the participant. Results of the additional sections, with the exception of the demographics, were then compared with results of surveys extracted from Howard Ebmeier's *Diagnostic Assessment of School and Principal Effectiveness*, which were completed by these principals' sub- and superordinates.

Comprised of 84 items ranked on a six point Likert scale, the extraction from Ebmeier's instrument asked the staffs and supervisors to rate the principal's effectiveness in four areas: ① how well the principal was achieving the goals set out in his/her mission statement, ② how well the principal's leadership enabled the school to adapt to meet stakeholder needs, ③ how well the principal was able to organize, coordinate and unify school programs and tasks, and ④ how well the principal was able to build and maintain a common view of the essentials for success.

Sanders' results were interesting. In terms of this proposed study, her most important finding was additional support for the validity and reliability of the Hillman instrument as a tool for determining principal self-efficacy. Other findings of interest included that principals who innovate more frequently than others are perceived as scattered and unorganized, and that just as teachers need support and understanding of the principal if they are to be maximally effective, so also the principals need support of teachers to do their best. In fact, the most
Efficacious principals in Sanders' study were also those thought to be the least efficacious by their staffs, perhaps because of the level of change which they promoted.

Hillman's (1986) study of principal efficacy and its impact on teacher efficacy and student achievement is important for two reasons. First, it provides one of the instruments to be used in this study—the Principal Self-Efficacy Questionnaire. Second, it demonstrates a direct correlation among high principal, teacher, and student self-efficacy, and student academic achievement. Hillman's research involved 19 principals, 35 teachers, and 758 students in 20 Michigan schools. Since details concerning her instrumentation and methodology are presented in depth in Chapter 3 of this document, they will not be repeated here.

Hillman's findings—that the instrumentation possessed both content validity and reliability, and that there is a measurable correlation among principal, teacher, and student self-efficacy and student academic performance—were important on three counts. First, they demonstrated that a valid, reliable, multi-dimensional measure of efficacy was possible, and that efficacy could be studied both as a wholistic concept and via subscale analysis to account for locus of control, stability of cause, situational specificity. Secondly, her results indicated that efficacy can be learned, and that higher levels of self-efficacy can be linked causally to higher levels of student achievement. Finally, they demonstrated that there is a direct
correlation between the principal's self efficacy and student achievement, even as mediated by teacher instructional efficacy.

Conclusions:

Certain foundational assumptions may be drawn from a review of the literature concerning the principal's sense of self-efficacy and its impact on the school and its programs, including those for special needs populations such as the gifted. The principal is expected to be an instructional leader, to impact the learning environment of the school and the learning climate which influences student achievement. Accordingly, just as the principal's support of curricular emphases in the school has a direct impact on the success or failure of those emphases, the principal's sense of self-efficacy has a measurable impact on teacher and student perceptions of self-efficacy, and therefore on student achievement.

What cannot be drawn from the literature is the extent to which a principal's sense of self-efficacy impacts the availability and support of instructional programming for special populations—specifically, for the gifted, who have a legitimate need for differentiated educational services, both in terms of curriculum and programs. The answer to that question was what this researcher hoped to draw from this study.
Introduction:

Though research has repeatedly supported the necessity of specialized educational services and programs for high-ability/gifted learners, the availability and quality of those services continues to vary dramatically from place to place and time to time. While in public school divisions/districts, the decisions concerning the nature, scope and funding of gifted programming is often made at the division/district level, the actual implementation of such programming is greatly impacted by decisions made at the most basic level—in the local school. Such decisions, including those of material, facility space, and even—to a degree—personnel allocation, most often fall within the umbrella of responsibilities of the school's principal, and thus are significantly impacted by his/her perception of what is necessary and what s/he can do to meet that perceived need. In the private sector school, this responsibility tends to be even more connected to the role of the principal, since, though private school boards determine policy and funding, they often rely on the principal(s) and head of school to inform them of the educational needs of the learning community.

Since the role of principal—regardless of the setting—carries with it such authority and responsibility for provision of adequate programming for learners,
the amount and quality of instructional leadership which s/he brings to the setting has been shown by prior research to be critical, as has the effectiveness which s/he can exercise within the domain of instructional leadership. Likewise, the principal’s self-efficacy has been shown to be related to the quality of instruction and to pupil performance within the school. What this study proposes to determine is whether there is a demonstrable relationship between the principal’s self-efficacy and the quality of educational programming offered to gifted students within the school.

Sample:

Participants in this study were principals of elementary schools—public, private non-faith/church-affiliated, and private faith/church-affiliated—within the Hampton Roads area of the southeastern region of the Commonwealth of Virginia. "Hampton Roads," though technically the nautical term for the lowest portion of the Chesapeake Bay, as it merges with the Atlantic Ocean, has been appropriated by the municipal and business groups within the region, and is now used to refer to that cluster of Virginia communities which surround and/or abut the southernmost portion of Chesapeake Bay, with the exception of those communities on the Delmarva Peninsula/Eastern Shore. The region is portrayed graphically in Figure 1.

Private schools were identified from the Hampton Roads/Eastern Shore area membership roster of the Virginia Council for Private Education (See

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Appendix A), which is comprised of both private schools which are not affiliated with any faith group *per se* (i.e., religious denomination/church/synagogue) and private schools affiliated with faith communities (including Evangelical Protestant, Roman Catholic, Episcopal, Lutheran, Presbyterian, Pentecostal, etc.) in the target area, and from local area telephone directories. A Commonwealth of Virginia Department of Education listing of accredited public schools in the twelve school divisions which comprise the Hampton Roads area provided the source of information for school and principal information in the public sector, and a listing of school division websites. Those sites were consulted for additional information and to cross-check data. When information was incomplete or dated, or in the case
of schools identified by use of the telephone directories, telephone contact with the school or school division was made to gain information, or to ascertain its accuracy. The twelve school divisions, number of elementary schools in each and total student population of each division, is presented in Table 1.

Table 1
A listing of the school divisions of the Hampton Roads area by division, number of elementary schools and student population

<table>
<thead>
<tr>
<th>SCHOOL DIVISION</th>
<th>ELEMENTARY SCHOOLS</th>
<th>DIVISION TOTAL STUDENT POPULATION 9/1/2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franklin City Schools</td>
<td>1</td>
<td>1,423</td>
</tr>
<tr>
<td>Poquoson City Schools</td>
<td>3</td>
<td>2,472</td>
</tr>
<tr>
<td>Isle of Wight County Schools</td>
<td>4</td>
<td>1,973</td>
</tr>
<tr>
<td>Williamsburg/James City County Schools</td>
<td>7</td>
<td>8,191</td>
</tr>
<tr>
<td>Franklin County Schools</td>
<td>11</td>
<td>7,140</td>
</tr>
<tr>
<td>Suffolk City Schools</td>
<td>12</td>
<td>11,983</td>
</tr>
<tr>
<td>Portsmouth City Schools</td>
<td>18</td>
<td>16,473</td>
</tr>
<tr>
<td>Hampton City Schools</td>
<td>27</td>
<td>23,290</td>
</tr>
<tr>
<td>Newport News City Schools</td>
<td>30</td>
<td>33,008</td>
</tr>
<tr>
<td>Chesapeake City Schools</td>
<td>28</td>
<td>37,888</td>
</tr>
<tr>
<td>Norfolk City Schools</td>
<td>36</td>
<td>37,349</td>
</tr>
<tr>
<td>Virginia Beach City Schools</td>
<td>55</td>
<td>76,586</td>
</tr>
<tr>
<td>TOTALS</td>
<td>232</td>
<td>257,776</td>
</tr>
</tbody>
</table>

Within the Hampton Roads area (Virginia Beach, Norfolk, Chesapeake, Portsmouth, Suffolk, Franklin, Isle of Wight, Hampton, Newport News, Poquoson, and Williamsburg/James City County), ninety-three accredited private schools offer formal educational services to students in elementary grades K-5/6. The
principals of these private schools, along with all the principals of the 232 public elementary schools in the Hampton Roads public school divisions of Virginia Beach City, Norfolk City, Chesapeake City, Portsmouth City, Suffolk City, Franklin City, Franklin County, Isle of Wight County, Hampton City, Newport News City, Poquoson City, and Williamsburg/James City County comprised the sample for this study.

**Instrumentation:**

For this research study, two instruments were used: a researcher-developed program quality survey, and a previously-normed principal self-efficacy survey developed by Hillman (1986). Based on the work of Bandura (1977; 1981), the self-efficacy instrument was designed specifically to measure the correlation among perceived self-efficacy of principals and the teachers and students within their schools, and student educational success. One of three instruments initially used in parallel with a teacher and a student self-efficacy scale, the Hillman instrument has since been utilized in only slightly adapted form (Sanders, 1995), and was found to be both valid and reliable in a study which also sought to determine if the principals' sense of self-efficacy was aligned with others' sense of the principal's efficacy, by measuring the correlation of the principal's perceived self-efficacy with the opinions of the principal's efficacy from the viewpoint of teachers working in the principal's school, and from the principal's supervisor. The study determined that the correlation among the three was robust, and also
contributed insight into how perception of the degree of successful innovation accomplished by the principal was directly correlated with the principal's self-efficacy, and adversely correlated to the comfort level of the teachers.

Hillman's instrumentation (See Appendix B) consists of sixteen stem statements, each of which is followed by four additional, concluding statements. Utilizing a five-choice, Likert-type scale whose possible choices range from "strongly agree" through "unsure" to "strongly disagree," the participants were asked to rate their agreement with each of the four possible conclusions to the stem statement, for a total of sixty-four responses. Half of the stem/conclusion combinations were phrased to present positive situations ("I can ...") and half were phrased to present negative ones ("I cannot...") to address predictions that self-efficacy is situationally specific (Bandura, 1981; Fuller, Wood, Rapoport, & Dornbusch, 1982; Lefcourt, 1976). Of these, half were phrased to indicate internal causality ("...because I [did]..."), and half external causality ("...because they [did]...") to account for Rotter's concept of locus of control (Stipek & Weisz, 1981). Within each of these sub-categories, half were phrased to indicate fixed causality ("...because I am intelligent"), and half were phrased to indicate variable causality ("...because I try hard") to accommodate attribution theory's categorization of causation (Lefcourt, 1976) and its interaction with locus of control. Thus, there were four each of positive internal fixed, positive internal variable, positive
external fixed, positive external variable, negative internal fixed, negative internal variable, negative external fixed, and negative external variable statement combinations. Content validity of items, assessed utilizing percentage agreement, ranged from 93.75% to 100%, with a mean 97.27% level of agreement among items across all dimensions (See Appendix C) based upon the categorizations noted above.

Initial administration of the instrument to 44 Indiana elementary school principals indicated that reliability of the instrument (using Cronbach’s alpha) ranged from .84 to .86 except for the positive and negative external fixed subscales, which demonstrated .57 and .74 levels respectively (See Appendix D), for an overall reliability in excess of .80. Item analysis indicated no inferior items. Additional analysis by Hillman indicated that the fixed (innate ability) and variable (expended effort) dimensions appeared to assess the same components of the construct of self-efficacy, as demonstrated by a correlation coefficient of .94 ($p < .01$), which resulted in Hillman’s collapsing the eight initial subscales into four—internal and external positive, and internal and external negative—each of which exhibited a degree of reliability (ranging from .85 to .91 as evaluated with Cronbach’s alpha, with a mean of .91) that exceeded the initial measures of reliability for the original subscales (See Appendix E). A conclusive reliability check of the instrumentation in a study involving 19 principals, 35 teachers, and 758 students from 20 schools (half high-achieving, half low-achieving) selected to
represent a stratified random sample of all Michigan public elementary schools,
indicated high reliability of the instrument and its two companion instruments, with
all subscales achieving substantial alpha levels, and each instrument able to be
interpreted either as a total scale or by its subscales (Hillman, 1986).

The Program Survey (See Appendix F) was developed and piloted with a
group of principals \( n = 12 \). Based upon responses of the pilot sample and the
advice of seasoned researchers and methodologists, it was revised and piloted a
second time by the researcher to facilitate a clearer connection between survey
items and NAGC program standards, to clarify language in wording of items, to
revise the order of items to allow better flow among them, and to enable more
accurate scoring. In the second iteration, the pilot sample of principals \( n = 10 \)
reported that the instrument was understandable, straightforward, and efficient.

After requesting school demographic information including pupil population
size, educational focus, affiliation, and mode of service delivery, the survey posed
questions based upon attributes identified by the National Association for Gifted
Children (NAGC) as minimal criteria for appropriate gifted programming (see
Table 2), including criteria for curriculum and instruction, program administration
and management, program design, program evaluation, socio-emotional guidance and
counseling, professional development, and student identification/participant
selection (NAGC, 1998). Administrative perceptions of program stakeholder

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satisfaction were probed, and in cases where no programs/services were currently available to gifted learners, administrators' attitudes concerning the need/desirability of such services was also explored.

Table 2
*NAGC program standards and the Program Quality Survey instrument*

<table>
<thead>
<tr>
<th>Program Quality Survey Question Number</th>
<th>NAGC Program Standard Number</th>
<th>NAGC Program Criterion Standard Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>Program Design: The development of appropriate gifted education programming requires comprehensive services based on sound philosophical, theoretical, and empirical support.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Curriculum and Instruction: Gifted education services must include curricular and instructional opportunities directed to the unique needs of the gifted child.</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Socio-Emotional Guidance and Counseling: Gifted education programming must establish a plan to recognize and nurture the unique socio-emotional development of gifted learners.</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>Student Identification: Gifted learners must be assessed to determine appropriate educational services.</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>Professional Development: Gifted learners are entitled to be served by professional who have specialized preparation in gifted education, expertise in appropriate differentiated content and instructional methods, involvement in ongoing professional development, and who possess exemplary personal and professional traits.</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>Program Administration and Management: Appropriate gifted programming must include the establishment of a systematic means of developing, implementing, and managing services.</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>Program Evaluation: Program evaluation is the systematic study of the value and impact of services provided.</td>
</tr>
</tbody>
</table>

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Research Questions:

Two primary questions governed this study: ① Is there a correlation between the perceived self-efficacy of a school's principal and the availability/quality of programming provided for high-ability learners/gifted students within the school? and ② Does the correlation between principal self-efficacy and the availability/quality of gifted programming vary discernibly based upon school demographics, or upon characteristics or attributes of the principal? In addition to these primary inquiries, several subordinate questions were also asked. These included: ③ How, if at all, does the nature of the correlation between principal self-efficacy and gifted programming availability/quality vary among public schools based upon their location (urban, suburban, or rural), the size of their student population, the primary focus of the school (general education, special education or gifted education), the tenure of the current principal, the principal's sense of the degree of control which s/he has over gifted programming, and/or the opinion of the principal regarding the need for gifted programming and its impact on the quality of education available throughout the building? and ④ Is there a difference in the availability/quality of programming for gifted learners based upon the affiliation of the school (public, private-not faith/church affiliated, private faith/church affiliated), and if so, how does such a difference correlate with the school's principal's self-efficacy?
Study Procedures:

Selection/identification of the participant sample represented the first step of the research design for this study, and has been fully explicated in that section of this chapter. To briefly summarize that process, information available publicly via the Commonwealth of Virginia Department of Education, city and county school division web sites, the Virginia Council for Private Education, and local phone directories furnished the population data, and the bases for contact for both the public and private schools. The sample was comprised of all the principals of public and private elementary schools in Hampton Roads.

Once the sample was identified, principal name and mailing information was verified by telephone contact with the appropriate school division and/or school, and mailing labels were printed. The survey mailer packets containing a brief letter announcing the research study, explaining its importance, requesting the principal's participation, and providing instructions for completing the surveys, along with the two surveys, a postage paid return envelope and postage-paid response card, and a courtesy gift, were compiled and mailed to each participant.

Participants were asked, when they mailed their completed packet, to mail the survey completion (response) post card indicating their participation and their desire to receive/not to receive the research results. Within seventy-two hours of mailing, follow-up phone calls were made to all participants, encouraging them to
complete the surveys if they had not done so, and to return them as soon as possible. Approximately two weeks after the initial mailing was sent, new packets containing the surveys, a postage-paid return envelope, a postage-paid survey completion card, and a short note recognizing the importance and business of the principal's responsibilities, but requesting that the principal complete and return the survey quickly so that an accurate picture of the situation can be completed was sent to all who still had not returned their surveys/survey completion cards. These were also followed by telephone calls three working days later to be sure that the principal had received the packet, and a second round of phone calls three days after that.

As surveys were returned, they were numbered as pairs (e.g., 1E & 1P, 2E & 2P, etc.) according to order of arrival, and their responses were entered into the SPSS 10.0 data base. Approximately sixty days after the initial mailing, data analysis of the completed and returned instruments commenced.

Data Analysis:

Analysis of the data involved three steps. First, level of self-efficacy was determined utilizing the Hillman response scoring protocol, which awarded points to each item completion statement according to a predetermined formula. Next, availability of gifted programming was determined, and for those responses which indicated such availability, the reported quality of program was determined by
awarding points for each positive response to one of the NAGC program criteria minimal program quality statements. In both cases, higher scores indicated a greater presumed presence of the attribute measured. Then, the results of the survey scores were entered into the SPSS database, from which data analysis appropriate to each research question was performed. A matrix indicating relevant information concerning research sampling, questions, instrumentation, and data interpretation is presented in Table 3.

Limitations of the study:

Prior to enumerating the key findings of the study and attempting to interpret and draw implications from them, it was important to consider the limitations of the study, and to weigh their impact on the results of the research. As is the case in all but meta-analyses and longitudinal studies, this study represents a "snapshot" — a frozen moment in time — of the perceptions of a group of elementary principals in Hampton Roads, Virginia in the late spring of 2001. Because of this, it can be expected that both environmental and personal factors beyond the control of the researcher have, in some fashion, colored or impacted the principals' perceptions and responses. Since the end of the academic year is a time of great activity—and often significant stress—for principals, these results should be viewed not as something permanently carved in stone, but rather
Table 3
Research methodology matrix

<table>
<thead>
<tr>
<th>PURPOSE OF THE STUDY</th>
<th>RESEARCH QUESTIONS</th>
<th>DATA ANALYSIS</th>
<th>INSTRUMENTATION</th>
</tr>
</thead>
</table>
| • To determine if a correlation exists between principal self-efficacy and the availability and quality of educational programming/services available to gifted students in the principal's school. | ① Is there a correlation between the perceived self-efficacy of a school's principal and the availability and quality of programming offered to high-ability/gifted students within his/her school? | • Bivariate correlation analysis  
• General univariate linear analysis  
• Multiple regression analysis | • Hillman Principal Self-Efficacy Scale  
• Researcher-developed program survey |
| • To explore the impact of school demographics and certain characteristics of the principal upon the correlation between principal self-efficacy and the availability and quality of programming available to gifted students in a school. | ② Does the level of correlation between self-efficacy and the availability and quality of gifted programming vary discernibly for principals and their schools based upon the type of school in which they serve (public or private) and the size of the student population served? | • Bivariate correlation analysis  
• General univariate linear analysis  
• Partial correlation analysis |                                                                                     |

as views open to change over time as situations and conditions in the principals' lives change.

Though the sample for this study was comprised of the population of elementary school principals in the Hampton Roads, Virginia, area, the rate of response (44% overall, 36% useable) was lower than expected or predicted by the
researcher, and could be interpreted in many ways. No matter how interpreted, the response rate limits the generalizability of the study, and other researchers are encouraged to replicate the study in their locale to determine if the response rate and/or findings would be similar.

By design, the sample for this study was comprised of elementary school principals only. Since results may vary significantly for studies conducted at the middle school and high school levels, readers should not attempt to generalize the results to schools at those levels.

Though principals surveyed for this study were administrators of public, private non-church/faith-affiliated and private church/faith-affiliated schools located in urban, suburban and rural areas of the Hampton Roads region of southeast Virginia, because of the regional nature of the population/sample, generalizability of the results to populations in other regions/states may also be limited.

The number of schools which reported that they do not offer programming to gifted learners (approximately 43% of respondents), though contributing information vital to determining the presence of gifted programming, restricted the size of the pool of responses which could be analyzed for indicators of program quality, further limiting the sample size and the potential generalizability of the study.
Chapter 4

Analysis of Results

Introduction:

The primary purpose of this study was to determine the extent to which a principal's sense of self-efficacy impacted the availability and quality of instructional programming for high-ability learners (i.e., the gifted) in his/her school. Secondarily, the study proposed to examine whether the correlation between principal self-efficacy, and the availability and quality of gifted programming varied based on school demographics and certain principal characteristics. To facilitate the investigation, data gathered focused on three realms: ① self-efficacy, ② the presence of specific program options for gifted learners in the principal's school, and if such program options were present, the nature of those options, and ③ demographics of the school and a highly limited set of characteristics of its current principal (the respondent).

Two primary questions governed the study: ① Is there a correlation between the self-efficacy of a school's principal and the availability/quality of programming for its gifted students? and ② Does the correlation between principal self-efficacy and the availability/quality of gifted programming vary discernibly based upon school demographics or certain characteristics/attributes of the principal? In addition to these primary inquiries, subordinate questions were also asked. These

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included: ⑤ How, if at all, does the nature of the correlation between principal self-efficacy and gifted programming availability/quality vary among public schools based upon their location (urban, suburban, or rural), the size of their student population, the primary focus of the school (general education, special education or gifted education), the tenure of the current principal, the principal's sense of the degree of control which s/he has over gifted programming, and/or the opinion of the principal regarding the need for gifted programming and its impact on the quality of education available throughout the building? and ⑥ Is there a difference in the availability/quality of programming for gifted learners based upon the affiliation of the school (public, private-not faith/church affiliated, private faith/church affiliated), and if so, does such a difference correlate with the school's principal's self-efficacy?

A packet containing an introductory letter, two survey instruments, a postage-paid return mailing envelope, a postage-paid return postcard, and two single-serving beverage steeping bags (one coffee, one tea) was sent to the principals of the 325 identified public (n = 232) and private (non-church/faith affiliated and church/faith-affiliated; n = 93) elementary schools in the South Hampton Roads area of southeastern Virginia in early June, 2001. The introductory letter requested that the principal complete and return the surveys (regarding matters of interest to principals and import to education) in the postage-paid envelope (maintaining anonymity), and then that s/he send back the postage-paid
response card to alert the researcher that the surveys had been returned (thus avoiding follow-up phone calls and/or mailings) and to indicate whether or not s/he desired a copy of survey results. The letter also indicated that the surveys could be completed in the amount of time necessary to heat the water for, and to enjoy one of the beverages — about fifteen to twenty minutes. Mailings of these packets were followed within seventy-two hours by telephone calls to the schools, asking whether the principal had received the mailing, and encouraging him/her to return it as soon as possible.

Fifty-nine surveys (18% of those mailed, 56.2% of those returned) were returned within ten days of mailing. Four days later, a second set of packets with contents the same as the first (except that the beverages were not included) were mailed to non-respondents. The introductory letter in these packets indicated that the researcher understood the demands on the principal's time, knew that some documents didn't make it through the mail, and again asked that the principal invest fifteen to twenty minutes to complete the two surveys concerning matters of interest to the principal and import to education, and that s/he return it within the next couple of days. Again, telephone calls followed the mailing of the packets within seventy-two hours. A second set of follow-up calls was made three days later, simply leaving a message on the school's voice mail encouraging the principal to return the documents as soon as possible. Response to the second set of
mailings included forty-six completed surveys or sets of surveys (14% of those mailed, 46.7% of those returned), six responses (1.5% of packets mailed) returning everything to the researcher and indicating that the principal was too busy to respond, and notification from a representative of twenty-two principals (6.8% of those contacted) that their public school division had instructed them not to respond to the survey because the human subjects review committee of the division was requiring that the surveys and all supporting documentation be submitted for their approval. From the latter group of principals, four responded with completed documents.

In all, one hundred five useable, completed surveys or sets of surveys (32.3%), were returned to the researcher after two mailings, three rounds of follow-up telephone calls, and numerous personal contacts with principals by the researcher. Contact from the representative of the 22 principals instructed not to respond to the survey, and return of the six untouched sets brought the overall number of responses to 129, and the overall rate of return to 39.69% (See Table 4). Percentages of responses received overall from principals of public schools and those of private schools aligned closely with the percentages of surveys sent to those schools, so that the results received may be construed to be representative of each segment of the sample, and not skewed in favor of one type of school affiliation or the other (See Table 5). Total elapsed time from the first mailing to
Table 4
Survey mailing and return rates

<table>
<thead>
<tr>
<th>School Affiliation</th>
<th>n Mailed</th>
<th>% of Mailed</th>
<th>n Returned Partially/ Fully Completed</th>
<th>% of Mailed Returned Partially/ Fully Completed</th>
<th>n Returned Untouched/ Prohibited</th>
<th>% of Mailed Returned Untouched/ Prohibited</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUBLIC</strong></td>
<td>232</td>
<td>71.38%</td>
<td>69</td>
<td>21.23%</td>
<td>22</td>
<td>6.77%</td>
<td>91</td>
<td>28.00%</td>
</tr>
<tr>
<td><strong>PRIVATE</strong></td>
<td>93</td>
<td>28.62%</td>
<td>36</td>
<td>11.08%</td>
<td>2</td>
<td>0.62%</td>
<td>38</td>
<td>11.69%</td>
</tr>
<tr>
<td><strong>ALL</strong></td>
<td>325</td>
<td>100%</td>
<td>105</td>
<td>32.31%</td>
<td>24</td>
<td>7.38%</td>
<td>129</td>
<td>39.69%</td>
</tr>
</tbody>
</table>

The last returned document was nearly fifty days, and from the first mailing to the beginning of tabulation of data was approximately sixty days.

Table 5
Survey return rates by school affiliation

<table>
<thead>
<tr>
<th>School Affiliation</th>
<th>n Mailed</th>
<th>% of Mailed</th>
<th>n Returned Partially/ Fully Completed, or Otherwise Accounted For*</th>
<th>% of Returns Partially or Fully Completed, or Otherwise Accounted For*</th>
<th>% Difference, Mailed: Returned/ or otherwise Accounted for</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUBLIC</strong></td>
<td>232</td>
<td>71.38%</td>
<td>91</td>
<td>70.54%</td>
<td>-0.84%</td>
</tr>
<tr>
<td><strong>PRIVATE</strong></td>
<td>93</td>
<td>28.62%</td>
<td>36</td>
<td>29.46%</td>
<td>0.84%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>325</td>
<td>100%</td>
<td>129</td>
<td>100%</td>
<td>-</td>
</tr>
</tbody>
</table>

* "Accounted for" documents include those returned unmarked and those not returned because of prohibition of school system. See text for additional information.

School Demographics and Principal Characteristics:

The researcher's program survey began with a short demographic information block in which the respondent was requested to indicate school population (0-150, 151-300, 301-500, 501+), primary focus (general education,
special education, gifted education), location (urban, suburban, rural), and affiliation
(public, private-not faith/church affiliated, private faith/church affiliated), as well
as the tenure of the current principal (the respondent). Each respondent was also
asked whether s/he felt that gifted programming is necessary for students, and
whether s/he believed that it provides a basis for raising the level of instruction
for all classrooms. Finally, respondents whose schools provide gifted programming
were asked to indicate the level of responsibility for supervision of gifted
programming which they felt was vested in themselves, how they believed that
stakeholder groups would rate the program, and whether they wished to see gifted
programming remain as it was, be decreased, or be increased. Scores for responses
to these items were not included in the determination of program quality, but were
analyzed in comparison with program quality scores and self-efficacy ratings.

Results:

Demographic information for the sample respondents indicates that
eighteen schools (17.1%) serve 150 or fewer students, seven (6.7%) serve 151-300
students, thirty (28.6%) serve 301-500 students, and forty-one (39.0%) serve 501
or more students. Nine principals (8.6% of those responding) did not indicate
school population size (See Table 6). Eighty-five principals (81.0%) stated their
school's focus was general education, seven (6.7%) that it was special education, two
(1.9%) that it focused on gifted education, and eleven (10.5%) made no notation
Table 6
School size

<table>
<thead>
<tr>
<th>School Size</th>
<th>1-150 Students</th>
<th>151-300 Students</th>
<th>301-500 Students</th>
<th>501 or More Students</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>18</td>
<td>7</td>
<td>30</td>
<td>41</td>
<td>9</td>
</tr>
<tr>
<td>Percentage of Respondents</td>
<td>17.1%</td>
<td>6.7%</td>
<td>28.6%</td>
<td>39.0%</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

(See Table 7). Thirty-nine (37.1%) principals described their schools as urban, forty-one (39.0%) described them as suburban, and nine (8.6%) described them as rural (See Table 8).

Table 7
School focus

<table>
<thead>
<tr>
<th>School Focus</th>
<th>General Education</th>
<th>Special Education</th>
<th>Gifted Education</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>85</td>
<td>7</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Percentage of Respondents</td>
<td>81.0%</td>
<td>6.7%</td>
<td>1.9%</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

Table 8
School location

<table>
<thead>
<tr>
<th>School Location</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>39</td>
<td>41</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Percentage of Respondents</td>
<td>37.1%</td>
<td>39.0%</td>
<td>8.6%</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

Sixty-one respondents (58.1%) were public school principals, eleven (10.5%) led private schools which were not faith/church affiliated, and twenty-two (21%)
served in private, faith/church affiliated schools—Non-Denominational/Evangelical Christian: 12 (11.4%), Roman Catholic: 3 (2.9%), Lutheran: 2 (1.9%), other: 5 (4.8%).

Eleven principals did not report school affiliation (See Table 9).

Table 9
School affiliation

<table>
<thead>
<tr>
<th>School Affiliation</th>
<th>n</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUBLIC</strong></td>
<td>61</td>
<td>58.1%</td>
</tr>
<tr>
<td><strong>PRIVATE, NOT CHURCH/FAITH AFFILIATED</strong></td>
<td>11</td>
<td>10.5%</td>
</tr>
<tr>
<td><strong>PRIVATE, CHURCH/FAITH AFFILIATED</strong></td>
<td>22</td>
<td>21.0%</td>
</tr>
</tbody>
</table>

- **PUBLIC**
- **PRIVATE, NOT CHURCH/FAITH AFFILIATED**
- **PRIVATE, CHURCH/FAITH AFFILIATED**

TOTALS INCLUDE THE FOLLOWING:
- Roman Catholic: 3 (2.9%)
- Lutheran: 2 (1.9%)
- Moslem: 0 (0%)

Of those responding, three principals (2.9%) were serving their first year at the school, eleven (10.5%) had completed one year of service, twenty-four (22.9%) had served for two to three years, and fifty-three (50.5%) had served at their
school for four or more years. Fourteen did not report the length of their tenure at their current school (See Table 10).

Table 10

Length of service of principal at current school

<table>
<thead>
<tr>
<th>Years Served</th>
<th>In First Year</th>
<th>One Year Completed</th>
<th>Two to Three Years</th>
<th>Four or More Years</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>3</td>
<td>11</td>
<td>24</td>
<td>53</td>
<td>14</td>
</tr>
<tr>
<td>Percentage</td>
<td>2.9%</td>
<td>10.5%</td>
<td>22.9%</td>
<td>50.5%</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

Nine (8.6%) principals indicated that they did not believe that gifted programs are necessary to develop gifted students' abilities, while eighty (76.2%) felt that they are necessary. Sixteen principals (15.2%) did not respond to this question (See Table 11).

Table 11

Principal's perception of the necessity for gifted programming

<table>
<thead>
<tr>
<th>Believe that Gifted Programming is Necessary</th>
<th>Yes</th>
<th>No</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>80</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Percentage</td>
<td>76.2%</td>
<td>8.6%</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

To the question of whether they believe that gifted programs provide a basis for raising the instructional level of all classrooms, sixteen principals (15.2%) responded negatively, seventy-five (71.4%) responded affirmatively, and fourteen (13.3%)
chose not to respond (See Table 12). Concerning the future of gifted education at their schools, of the sixty-eight principals of schools which provide gifted education, twenty (29.4%) would prefer to have it remain as it currently is, one (1.5%) would like it to be decreased, and forty-one (60.2%) would like it to be increased. Thirty-five principals (33%) offered specific comments in support of

Table 12
Principal's perception of the role of gifted programming in raising instructional levels

<table>
<thead>
<tr>
<th>Believe that Gifted Programming Provides a Basis for Raising the Instructional Level of All Classrooms</th>
<th>Yes</th>
<th>No</th>
<th>Did Not Respond to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Percentage</td>
<td>71.4%</td>
<td>15.2%</td>
<td>13.3%</td>
</tr>
</tbody>
</table>

their position (See Table 13), of which thirty-four were supportive of a desire to increase or improve the program. Comments clustered in basic areas of concern, including the need for: ① increased contact—hours, frequency and intensity \((n = 10)\), ② increased staffing \((n = 10)\), ③ increased training and assistance for non-g/t teachers \((n = 8)\), ④ greater diversity and minority representation \((n = 4)\), ⑤ additional discipline-specific courses \((n = 4)\), ⑥ increased financial support \((n = 3)\), and ⑦ better identification protocols \((n = 3)\). Of all comments made, only one indicated a desire to see gifted programming be decreased by replacement of the off-campus program with an on-campus pull-out program.
Table 13

Principal’s desire concerning the future of gifted programming in the school

<table>
<thead>
<tr>
<th>Principal’s Preference</th>
<th>Maintain Status Quo</th>
<th>Increase Programming</th>
<th>Decrease Programming</th>
<th>No Preference Expressed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n</strong></td>
<td>20</td>
<td>41</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>29.4%</td>
<td>60.2%</td>
<td>1.5%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

Self-Efficacy:

Self-efficacy was determined by using Susan J. Hillman’s Principal Self-Efficacy Instrument, which explores efficacy in terms of four subscales of self-efficacy: 1 internal positive (internal locus of control, positive situational attribution, fixed and variable causality), which attributes results to the principal’s ability, 2 internal negative (internal locus of control, negative situational attribution, fixed and variable causality) which attributes lack of positive results to the principal’s inability, 3 external positive (external locus of control, positive situational attribution, fixed and variable causality) which attributes results to fortuitous external factors such as “good” materials, “easy” tests, “the gods smiling”/good luck, etc., and 4 external negative (external locus of control, negative situational attribution, fixed and variable causality) which attributes results to unfortunate/malevolent external factors such as “poor” materials, tests which are “too hard” or otherwise inappropriate, misfortune/bad luck, etc. Because efficacy is not a concept expressed in terms of absolute presence or absence, but rather in...
terms of a continuum of strength to weakness, the principal's level of self-perceived efficacy was considered on a range of low to high. Determination of self-efficacy level was based upon calculation of response scores based on a five point Likert scale (strongly agree, agree, unsure, disagree, strongly disagree) to each of four attributions of causality which followed the sixteen situational prompts.

Scoring of responses was calculated on the following basis: ① For internal positive attributions of causality, both fixed (e.g., "you possess a natural ability to be an instructional leader") and variable (e.g., "you put a great deal of effort into emphasizing academic achievement") statement completions, five points were assigned to strongly agree responses, four to agree responses, three to unsure responses, two to disagree responses, and one to strongly disagree responses. ② For internal negative attributions of causality, both fixed (e.g., "you do not possess the natural ability to be a leader") and variable (e.g., "you did not put in the effort needed to emphasize high achievement") statement completions, strongly agree responses were scored as one point, agree as two points, and so on to strongly disagree, which was scored as five points. ③ For all external attributions of causality, whether fixed positive (e.g., "the achievement test was too easy") or negative (e.g., "the statewide objectives are unrealistic and too difficult to attain"), variable positive (e.g., "you were simply lucky in getting kids that happened to be
strong in this area") or negative (e.g., "you were not lucky enough to get assigned to one of the better schools"), one point was awarded for a response of *strongly agree*, two for *agree*, three for *unsure*, four for *disagree*, and five for *strongly disagree*. Thus, the highest point value was always assigned to the response which most attributed the results to the individual's ability or efforts, and the lowest to that which most attributed the results (or lack thereof) to forces outside the individual's control. After each item was rated, scores were totaled within each subscale, and across the entire instrument, with lower scores indicating lower self-efficacy, and higher scores pointing to higher self-efficacy.

*Results:*

Both an overall score and four subscale scores were generated for each principal/respondent, and the total of the principal's responses to items correlating to each subscale was used to calculate his/her efficacy in that dimension. A minimum score of 16 points (sixteen items at one point each) and a maximum score of 80 points (sixteen items at five points each) were possible for each subscale, and a minimum of 64 points (sixty-four one-point answers) and maximum of 320 points (sixty-four five point answers) were possible for the overall score. For this sample, subscale scores spanned the full range (16-80) of possible points for the internal negative, external negative and external positive subscales, and from 22-80 points...
for the internal positive subscale. Full scale scores ranged from 64-306 points (See Table 14).

Table 14
Principal self-efficacy scores by subscales and full scale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Principal Mean score</th>
<th>Principal Median score</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Positive</td>
<td>58.75</td>
<td>61</td>
<td>22</td>
<td>80</td>
<td>11.92</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>53.46</td>
<td>55</td>
<td>16</td>
<td>80</td>
<td>16.93</td>
</tr>
<tr>
<td>External Positive</td>
<td>55.84</td>
<td>59.5</td>
<td>16</td>
<td>80</td>
<td>15.93</td>
</tr>
<tr>
<td>External Negative</td>
<td>55.95</td>
<td>58</td>
<td>16</td>
<td>80</td>
<td>14.37</td>
</tr>
<tr>
<td>Full Scale</td>
<td>223.99</td>
<td>231</td>
<td>64</td>
<td>306</td>
<td>49.67</td>
</tr>
</tbody>
</table>

Cronbach's Alpha reliability coefficients for the four subscales were:
internal positive, 0.91, internal negative, 0.95, external positive, 0.94, and external negative, 0.85; thus indicating good internal reliability of the instrument and good alignment of results from this sample with the instrument norms (See Table 15).

Of the 105 principals who responded to the mailings, five scored 10% to 20% of total points, three scored 50% to 59% of total points, twenty-five scored 60% to 69% of points, forty-two scored 70% to 79% of points, fifteen scored 80% to 89% of points, and two scored 90% or more of possible points. Thirteen chose not
complete the self-efficacy survey. Mean self-efficacy score was 70.09% of points possible, and median score was 72.19% of points possible (see Table 16).

Table 15
Reliability analysis of subscale scores—original norming and study sample

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Cronbach’s α: Hillman Norming</th>
<th>Cronbach’s α: Study Sample</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERNAL POSITIVE</td>
<td>0.87</td>
<td>0.91</td>
<td>0.04</td>
</tr>
<tr>
<td>INTERNAL NEGATIVE</td>
<td>0.91</td>
<td>0.95</td>
<td>0.04</td>
</tr>
<tr>
<td>EXTERNAL POSITIVE</td>
<td>0.88</td>
<td>0.94</td>
<td>0.06</td>
</tr>
<tr>
<td>EXTERNAL NEGATIVE</td>
<td>0.85</td>
<td>0.85</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table 16
Principal self-efficacy scores by percentiles

<table>
<thead>
<tr>
<th>PERCENTILE</th>
<th>n</th>
<th>LOW SCORE IN PERCENTILE</th>
<th>HIGH SCORE IN PERCENTILE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SCORE</td>
<td>AT %</td>
</tr>
<tr>
<td>0-9TH</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-19TH</td>
<td>5</td>
<td>39</td>
<td>12.19</td>
</tr>
<tr>
<td>20-29TH</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39TH</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-49TH</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-59TH</td>
<td>3</td>
<td>168</td>
<td>52.50</td>
</tr>
<tr>
<td>60-69TH</td>
<td>25</td>
<td>193</td>
<td>60.31</td>
</tr>
<tr>
<td>70-79TH</td>
<td>42</td>
<td>224</td>
<td>70.00</td>
</tr>
<tr>
<td>80-89TH</td>
<td>15</td>
<td>256</td>
<td>80.00</td>
</tr>
<tr>
<td>90-99TH</td>
<td>2</td>
<td>288</td>
<td>90.00</td>
</tr>
<tr>
<td>Survey Not Completed</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For purposes of initial comparison, respondent scores were also divided into quartiles, first by dividing them at the median, and then by dividing each half at its median score, in order to create four groupings of similar size. Scores below the
median were regarded as indicators lower self-efficacy, while those in the upper two quartiles were considered representative of higher self-efficacy (See Table 17).

The wide range of individual scores on the self-efficacy instrument, of which 89.1% of completed surveys and 78.1% of all surveys returned \( (n = 82) \) fell between the 60th and 90th percentiles (193-287 points), presented challenges in the interpretation of statistical comparisons. Neither percentile nor quartile groupings seemed likely give statistically important results, especially when taking into consideration the location of the mean (223.99) and median (231) scores on the instrument (both in the low 70th percentile, and the second quartile), and so were not used for further comparison. However, it is interesting to note that 75% of respondents' scores were above the 70th percentile, a clustering which presents a consistency of appraisal of self-efficacy among respondents.

Table 17

Principal self-efficacy scores by quartiles

<table>
<thead>
<tr>
<th>Quartile</th>
<th>( n )</th>
<th>( % )</th>
<th>Low Score</th>
<th>High Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Points</td>
<td>Points</td>
</tr>
<tr>
<td>FIRST</td>
<td>23</td>
<td>21.90</td>
<td>64</td>
<td>1219</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>213</td>
<td>66.56</td>
</tr>
<tr>
<td>SECOND</td>
<td>24</td>
<td>22.86</td>
<td>215</td>
<td>67.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>231</td>
<td>72.19</td>
</tr>
<tr>
<td>THIRD</td>
<td>22</td>
<td>20.95</td>
<td>233</td>
<td>72.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>245</td>
<td>76.56</td>
</tr>
<tr>
<td>FOURTH</td>
<td>23</td>
<td>21.90</td>
<td>247</td>
<td>77.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>306</td>
<td>95.63</td>
</tr>
<tr>
<td>SURVEY NOT COMPLETED</td>
<td>13</td>
<td>12.38</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

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Availability and Quality of Programming for Gifted Learners:

Both the availability of educational programming for gifted learners and the quality of that programming if it existed was determined by use of a researcher-designed survey. Determination of the existence of gifted programming was made by simply asking, "Is there programming for high ability learners—the gifted/talented—in your school?" If the principal answered negatively, s/he was asked to go to the final page of the survey to respond to an item which sought to determine the immediate and short-term potential for gifted programming at the school.

Principals whose schools had programming for gifted students were asked to indicate how that programming was provided in terms of 1) grouping, 2) meeting frequency, duration and place, and 3) program components. They were then asked to respond affirmatively (the school does/has) or negatively (the school does not do/have) to statements describing attributes of gifted programs. The statements, which were grouped in seven categories corresponding to the gifted education programming criteria (curriculum and instruction, program administration and management, program design, program evaluation, socio-emotional guidance and counseling, professional development, and student identification) recommended by the National Association for Gifted Children (1998), were carefully paraphrased restatements of the minimum standards for the guiding principles set forth by the
Each cluster contained no less than five, nor more than fifteen, statements.

For each respondent whose school provided gifted programming, seven categorical criterion raw scores were generated, then converted into percentages (based upon the total number of points available per category) in order that no category would be given greater or lesser weight in calculation of the overall program quality score (since the NAGC has not indicated that any one criterion is more important than any other). The sum of the categorical percentage scores was interpreted as the indicator of the quality of the respondent's school's gifted program as compared to minimal indicators of quality established by NAGC.

It is important to note that the categorical sum scores represent program alignment with NAGC quality criteria at minimal levels, and not with the exemplary levels of those program criteria. Program quality, as determined by this study, is therefore a measure of how well the principal's perception or the school's gifted program matches up to an acceptable, not an excellent, gifted program.

Results:

Of the 105 respondents, 34 indicated that their schools did not provide gifted programming (32.4%), 68 indicated that their schools provided gifted programming (64.8%) and three did not respond to the question (2.9%).
Program quality indicator statement scores were assigned to each response according to the following rules:

- For a response of “Yes” to an indicator statement, a score of two points was awarded.

- For a response of “No” to an indicator statement, a score of one point was awarded.

- For no response to an indicator statement (neither a “Yes” nor a “No” response marked), a score of zero was awarded with the following exceptions:
  - If a response was not marked, but ninety percent or more of all responses to program quality indicators in the survey were marked (54 or more), the missing response was construed to be “No”, and one point was awarded for it.
  - If the only marked responses to program quality indicators were “Yes” responses, and those “Yes” responses were found in six or more of the NAGC indicator categories, each unmarked response was considered to be “No”, and one point was awarded for it.

Program Quality Surveys with a score of zero in any indicator were eliminated from comparison to self-efficacy scores, leaving sixty-nine program quality surveys for comparison to scored self-efficacy instruments.
Responses to categorical criteria from those whose schools provided gifted programming produced categorical scores which were clustered typically within a 30 percentile range at the upper end of the spectrum, which appears to indicate a relative consistency among principals' perceptions of their programs where gifted programming is available. Criterial mean raw scores ranged from a low of 6.77 out of a possible 10 (67.69%) for socio-emotional guidance and counseling to a high of 14.26 of a possible 16 (89.13%) for curriculum and instruction, with program design (12.62 of 18; 70.09%), program evaluation (12.2 of 16; 76.25%), participant selection/student identification (23.23 of 30; 77.49%), professional development (10.97 of 14; 78.35%), and program administration (13.62 of 16; 85.1%) between (See Table 18). A listing of the categorical criteria ranked by mean and median scores can be seen in Table 19, and a graphical representation of these scores is presented in Figure 2.

![Figure 2](image)

**Figure 2**
Program criteria mean raw and percentage scores

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Table 18
Program Quality Survey score distribution

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Items</th>
<th>Mean</th>
<th>Median</th>
<th>Range of Scores</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Range of Scores</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Curriculum &amp; Instruction</td>
<td>8</td>
<td>16</td>
<td>14.26</td>
<td>88.13</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>8</td>
<td>16</td>
<td>63.75</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3.05</td>
<td>16.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Administration &amp; Management</td>
<td>8</td>
<td>16</td>
<td>13.62</td>
<td>88.13</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>100</td>
<td>100</td>
<td>72.00</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7.20</td>
<td>38.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Design</td>
<td>9</td>
<td>16</td>
<td>12.62</td>
<td>88.13</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>88.13</td>
<td>88.13</td>
<td>72.00</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>7.20</td>
<td>38.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Evaluation</td>
<td>8</td>
<td>16</td>
<td>12.2</td>
<td>76.25</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>100</td>
<td>100</td>
<td>63.66</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6.36</td>
<td>39.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-Emotional Guidance &amp; Counseling</td>
<td>5</td>
<td>10</td>
<td>6.77</td>
<td>67.69</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>70.00</td>
<td>70.00</td>
<td>2.40</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2.40</td>
<td>25.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td>7</td>
<td>14</td>
<td>10.97</td>
<td>78.36</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>87.51</td>
<td>87.51</td>
<td>3.83</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3.83</td>
<td>77.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Identification</td>
<td>15</td>
<td>30</td>
<td>23.25</td>
<td>77.49</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>93.33</td>
<td>93.33</td>
<td>10.51</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>10.51</td>
<td>35.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Criteria</td>
<td>60</td>
<td>120</td>
<td>93.68</td>
<td>78.06</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>119</td>
<td>89.17</td>
<td>89.17</td>
<td>23.16</td>
<td>119</td>
</tr>
</tbody>
</table>

In order to better observe patterns of responses for individual criteria, and to determine if responses within each criterion were even across and among items or whether certain items were consistently present and others consistently absent, frequency analysis of responses to individual Program Quality Survey criterial items was conducted. The results of that analysis is presented in Tables 20-26.
Table 19

Program Quality Survey categorical criteria score ranking

<table>
<thead>
<tr>
<th>Program</th>
<th>Raw Score</th>
<th>Mean Scores</th>
<th>Median Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum &amp; Instruction Program</td>
<td>13.62</td>
<td>69.12</td>
<td>15.95</td>
</tr>
<tr>
<td>Administration &amp; Management Program</td>
<td>12.22</td>
<td>70.08</td>
<td>16.23</td>
</tr>
<tr>
<td>Program Design</td>
<td>12.22</td>
<td>70.08</td>
<td>16.23</td>
</tr>
<tr>
<td>Program Evaluation</td>
<td>12.22</td>
<td>70.08</td>
<td>16.23</td>
</tr>
<tr>
<td>Social-Emotional Guidance &amp; Counseling</td>
<td>10.97</td>
<td>78.35</td>
<td>12.75</td>
</tr>
<tr>
<td>Professional Development</td>
<td>12.22</td>
<td>70.08</td>
<td>16.23</td>
</tr>
<tr>
<td>Student Identification</td>
<td>12.22</td>
<td>70.08</td>
<td>16.23</td>
</tr>
</tbody>
</table>

In the criterion area of program design, principals most often reported that gifted services were accessible to all gifted learners, and that appropriate gifted educational opportunities are provided in a suitable environment either on the same campus, or at a central location. On the other hand, the greatest challenges which seemed to face programs in the program design aspect were what was perceived as inequitable funding when compared to other educational programs and the lack of outside review of the program (See Table 20).
Table 20
Program Quality Survey responses by item: Criterion – Program design

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>5a</td>
<td>Concerning our program’s design...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gifted programming services are accessible to all gifted learners</td>
<td>68</td>
<td>66</td>
<td>97.1</td>
</tr>
<tr>
<td>5b</td>
<td>Funding for gifted education is equitable when compared to the funding of our other educational programs.</td>
<td>68</td>
<td>38</td>
<td>55.9</td>
</tr>
<tr>
<td>5c</td>
<td>Our gifted program is submitted for outside review on a regular basis.</td>
<td>68</td>
<td>45</td>
<td>66.2</td>
</tr>
<tr>
<td>5d</td>
<td>Our gifted program is guided by a clearly articulated philosophy statement and accompanying goals and objectives</td>
<td>68</td>
<td>61</td>
<td>89.7</td>
</tr>
<tr>
<td>5e</td>
<td>Our gifted program is a part of a continuum of services in our across grades pre-K-12.</td>
<td>68</td>
<td>58</td>
<td>85.3</td>
</tr>
<tr>
<td>5f</td>
<td>Our gifted program is articulated with the general education program.</td>
<td>68</td>
<td>55</td>
<td>80.9</td>
</tr>
<tr>
<td>5g</td>
<td>Appropriate gifted educational opportunities are provided in: the regular classroom, a resource classroom, a separate location, an optional voluntary environment.</td>
<td>67</td>
<td>63</td>
<td>94.0</td>
</tr>
<tr>
<td>5h</td>
<td>Flexible grouping of gifted learners is an integral part of gifted education programming.</td>
<td>67</td>
<td>49</td>
<td>73.1</td>
</tr>
<tr>
<td>5i</td>
<td>Both existing and future school policies include provisions for the needs of gifted learners.</td>
<td>68</td>
<td>60</td>
<td>88.2</td>
</tr>
</tbody>
</table>

In the criterion area of curriculum and instruction, most principals reported that differentiation was primarily the responsibility of the classroom teacher.

Other points of agreement among principals appear to be that the school district/division provides the curricular and instructional guidelines and model, and that such differentiation really does occur (See Table 21).
Table 21

Program Quality Survey responses by item: Criterion – Curriculum and instruction

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>n</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a</td>
<td>Concerning our program's curriculum and instruction...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Our curriculum and instructional adaptations follow the district's model.</td>
<td>66</td>
<td>60</td>
<td>90.9</td>
<td>6</td>
<td>9.1</td>
</tr>
<tr>
<td>6b</td>
<td>Instruction, objectives, and strategies for gifted students are differentiated from those offered in the regular classroom.</td>
<td>66</td>
<td>60</td>
<td>90.9</td>
<td>6</td>
<td>9.1</td>
</tr>
<tr>
<td>6c</td>
<td>Teachers are responsible for differentiating, replacing, supplementing, and/ or modifying curricula to facilitate higher level learning goals.</td>
<td>66</td>
<td>62</td>
<td>93.9</td>
<td>4</td>
<td>6.1</td>
</tr>
<tr>
<td>6d</td>
<td>We have established means for demonstrating proficiency in essential regular curriculum concepts and process in order to facilitate appropriate academic acceleration.</td>
<td>66</td>
<td>50</td>
<td>75.8</td>
<td>16</td>
<td>24.2</td>
</tr>
<tr>
<td>6e</td>
<td>When gifted learners demonstrate proficiency in basic skills and knowledge, they are provided with alternative challenging educational opportunities.</td>
<td>66</td>
<td>57</td>
<td>86.4</td>
<td>9</td>
<td>13.6</td>
</tr>
<tr>
<td>6f</td>
<td>The instructional program for gifted learners consists of advanced content and appropriately differentiated teaching strategies to reflect their accelerative learning pace and advanced intellectual processes.</td>
<td>66</td>
<td>60</td>
<td>90.0</td>
<td>6</td>
<td>9.1</td>
</tr>
<tr>
<td>6g</td>
<td>We offer diverse and appropriate learning experiences consisting of a variety of curricular options, instructional strategies, and materials.</td>
<td>66</td>
<td>56</td>
<td>84.8</td>
<td>10</td>
<td>15.2</td>
</tr>
<tr>
<td>6h</td>
<td>We provide flexible instructional arrangements (e.g., seminars, resource rooms, etc)</td>
<td>66</td>
<td>38</td>
<td>57.6</td>
<td>28</td>
<td>42.4</td>
</tr>
</tbody>
</table>

Yet flexibility of instructional arrangements is not present in nearly half the respondents' programs, and there is often no way for students to demonstrate
mastery of basic/essential curricular concepts so that they may accelerate their
learning pace. In fact, as can be seen in Table 21, in more than a quarter of the
programs, there is inadequate opportunity for appropriate curricular and
instructional differentiation for the gifted student. So even though principals
rated their programs highest in this criterion (out of the seven criteria), no one
program met all of the minimal criteria established by NAGC for quality gifted
program curriculum and instructional practice.

At the opposite end of the principals' ratings was the next criterion—
socio-emotional counseling and guidance. In this criterion area, with the exception
of one item—7d/gifted learners are provided with affective curriculum as part of
differentiated curriculum and instructional services—every item was missed by
more programs than it was achieved by. Most problematic appeared to be the
provision of career guidance consistent with learner strengths and appropriate to
their unique needs, followed closely by the lack of access to a counselor familiar
with the unique socio-emotional developmental characteristics and needs of the
gifted. Gifted underachievers were likely to be exited from the program as often
as they were counseled and worked with, and at-risk learners were more likely to be
left alone in their at-riskness than provided with special attention, counseling and
support (See Table 22).
Table 22

Program Quality Survey responses by item: Criterion – Socio-emotional guidance and counseling

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Concerning our program's way of nurturing the socio-emotional development of participants...</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7a</td>
<td>Gifted learners, because of their unique socio-emotional development, are provided with guidance and counseling services by a counselor who is familiar with the characteristics and socio-emotional needs of gifted learners.</td>
<td>67</td>
<td>23</td>
<td>44</td>
</tr>
<tr>
<td>7b</td>
<td>Gifted learners are provided with career guidance that is consistent with their unique strengths, and appropriate to their unique needs.</td>
<td>67</td>
<td>19</td>
<td>48</td>
</tr>
<tr>
<td>7c</td>
<td>Gifted learners who are placed at-risk have special attention, counseling, and support to help them realize their full potential.</td>
<td>67</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>7d</td>
<td>Gifted learners are provided with affective curriculum as part of differentiated curriculum and instructional services.</td>
<td>66</td>
<td>39</td>
<td>27</td>
</tr>
<tr>
<td>7e</td>
<td>Gifted students who are underachieving are not released/exited from the gifted program because of related problems.</td>
<td>66</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

Participant selection was the criterion which offered the most opportunities for the study participants to respond affirmatively about their programs, with fifteen items which focused on how program participants were chosen for admission. Principals almost unanimously identified (94%) the area of participant nomination as a program strength, with multiple sources of nominations being the norm.

Unfortunately, in nearly a quarter of the programs, a single assessment instrument could deny a student eligibility for gifted services, and in nearly a third
of the programs, a student would not be screened more than once in the elementary
grades for eligibility. Nearly as many programs reported that there were not
division-wide guidelines in place to assure screening at least once in elementary,
middle, and high school, and more than forty percent of programs did not utilize
language-dependent instruments written in the student's most fluent language even
when they were available (See Table 23).

Table 23

Program Quality Survey responses by item: Criterion – Participant selection

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a</td>
<td>Concerning our program's method of selecting participants...</td>
<td>67</td>
<td>55</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>We disseminate information regarding the characteristics of gifted students to appropriate staff members at least once each year.</td>
<td></td>
<td>82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parents are provided information regarding an understanding of giftedness and student characteristics.</td>
<td>67</td>
<td>58</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Our initial screening pool of potential recipients of gifted education services is comprised of all our school's students.</td>
<td>67</td>
<td>56</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Nominations for gifted services are accepted from any source, including (please check any which apply) Qteachers, Qparents, Qthe student him/herself, Qpeers, Qcommunity members, and/or Qothers.</td>
<td>67</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Language-dependent (i.e., verbal) assessment instruments measure the capabilities of students with provisions for the language in which the student is most fluent, whenever possible/available.</td>
<td>66</td>
<td>39</td>
<td>27</td>
</tr>
<tr>
<td>6f</td>
<td>Assessments are culturally fair.</td>
<td>66</td>
<td>56</td>
<td>10</td>
</tr>
</tbody>
</table>

(continues next page)
Table 23 (continued)

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>8g</td>
<td>Concerning our program’s method of selecting participants...</td>
<td>67</td>
<td>58</td>
<td>86.6</td>
<td>9</td>
<td>13.4</td>
</tr>
<tr>
<td>8h</td>
<td>We articulate the purpose(s) of student assessments consistently across all grade levels.</td>
<td>67</td>
<td>58</td>
<td>86.6</td>
<td>9</td>
<td>13.4</td>
</tr>
<tr>
<td>8i</td>
<td>Student assessments are sensitive to the current stage of talent development.</td>
<td>66</td>
<td>53</td>
<td>80.3</td>
<td>13</td>
<td>19.7</td>
</tr>
<tr>
<td>8j</td>
<td>An assessment profile is developed for each child to evaluate his/her eligibility for gifted education programming services.</td>
<td>66</td>
<td>57</td>
<td>86.4</td>
<td>9</td>
<td>13.6</td>
</tr>
<tr>
<td>8k</td>
<td>The student’s assessment profile reflects the unique learning characteristics and potential and performance levels of the student.</td>
<td>66</td>
<td>52</td>
<td>78.8</td>
<td>14</td>
<td>21.2</td>
</tr>
<tr>
<td>8l</td>
<td>No single assessment instrument or results deny a student eligibility for gifted programming services.</td>
<td>66</td>
<td>59</td>
<td>89.4</td>
<td>7</td>
<td>10.6</td>
</tr>
<tr>
<td>8m</td>
<td>All assessment instruments provide evidence of reliability and validity for the intended purposes and target students.</td>
<td>66</td>
<td>44</td>
<td>66.7</td>
<td>22</td>
<td>33.3</td>
</tr>
<tr>
<td>8n</td>
<td>Our school’s gifted programming guidelines contain specific procedures for student assessment at least once during the elementary grades, and are part of district guidelines which require additional assessments at least once in middle school, and again in high school.</td>
<td>66</td>
<td>46</td>
<td>69.7</td>
<td>20</td>
<td>30.3</td>
</tr>
<tr>
<td>8o</td>
<td>Our school assesses students more than once during the elementary grades for possible participation in gifted programs. (If YES, when?)</td>
<td>66</td>
<td>58</td>
<td>86.8</td>
<td>9</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Professional development was another criterion area of weakness for many programs responding. Fully one-third of all programs reporting failed to meet six
of the seven criterial items. Nearly forty percent of schools reported that personnel who work with the gifted are not released from other professional duties to participate in staff development efforts in gifted education, and one-third of schools do not require teachers of the gifted to attend even one professional development activity per year to increase their skills in instructing the gifted (See Table 24).

Table 24
Program Quality Survey responses by item: Criterion – Professional development

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>9a</td>
<td>Concerning the professional development of our staff, especially gifted programming providers...</td>
<td>67</td>
<td>55</td>
<td>82.1</td>
</tr>
<tr>
<td>9b</td>
<td>All school staff have been made aware of the nature and needs of gifted students.</td>
<td>67</td>
<td>44</td>
<td>65.7</td>
</tr>
<tr>
<td>9c</td>
<td>Teachers of gifted students must attend at least one professional development activity a year designed specifically for teaching gifted learners.</td>
<td>66</td>
<td>46</td>
<td>69.7</td>
</tr>
<tr>
<td>9d</td>
<td>All personnel working with gifted learners must be certified to teach in the area to which they are assigned, and must be aware of the unique learning differences and needs of gifted learners at the grade level at which they are teaching.</td>
<td>66</td>
<td>49</td>
<td>74.2</td>
</tr>
<tr>
<td>9e</td>
<td>All specialist teachers in gifted education must hold or be actively working toward a certification (or the equivalent) in gifted education in the state in which they teach.</td>
<td>66</td>
<td>43</td>
<td>65.2</td>
</tr>
<tr>
<td>9f</td>
<td>Any teacher whose primary responsibility for teaching includes gifted learners, must have extensive expertise in gifted education.</td>
<td>66</td>
<td>40</td>
<td>60.6</td>
</tr>
<tr>
<td>9g</td>
<td>School personnel are released from their professional duties to participate in staff development efforts in gifted education.</td>
<td>66</td>
<td>44</td>
<td>66.7</td>
</tr>
</tbody>
</table>
One-third of respondents indicated that personnel are not allotted time to plan for instructional differentiation, and as many indicated that teachers whose primary responsibility is the teaching of gifted learners need not have extensive expertise in the field. In fact, thirty percent of programs don't require teachers of the gifted to be certified in the academic discipline that they teach, and one-quarter of respondents don't require teachers of the gifted to hold or be actively working toward certification/endorsement in gifted education.

Principals appeared to be highly satisfied with the administration of gifted programming, though again no one program achieved even ninety percent of the minimum NAGC standards. Almost all principals indicated that gifted programs are provided with resources to support operations, though, if their responses to the items in the criterion area of program design are to be believed, the resourcing is inadequate and not equal to that of other special needs programming. Ninety percent of respondents felt that there was technical support provided for the programming services, and that the school library's selections reflected the range of needs represented by the presence of gifted learners. Most also believed that the program created linkages between general and gifted education (See Table 25).

Finally, participants addressed matters of program evaluation, reporting that nearly a quarter of programs did not provide adequate resources for program evaluation, and did not present the results in understandable form (See Table 26).
Cronbach’s Alpha reliability analyses were conducted for statements within each criterion, and across the seven criteria, in order to establish reliability of the items. Results for individual criteria were: curriculum and instruction, 0.75,

Table 25

Program Quality Survey responses by item: Criterion – Administration and management

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ITEM</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>10a</td>
<td>Our designated coordinator of gifted education, in order to be deemed appropriately qualified, has completed coursework or staff development in gifted education and displays leadership ability.</td>
<td>67</td>
<td>54</td>
<td>80.6</td>
</tr>
<tr>
<td>10b</td>
<td>Our gifted education program creates linkages between general education and gifted education services.</td>
<td>67</td>
<td>61</td>
<td>91.0</td>
</tr>
<tr>
<td>10c</td>
<td>Gifted programming staff establish on-going parent communication.</td>
<td>67</td>
<td>60</td>
<td>89.6</td>
</tr>
<tr>
<td>10d</td>
<td>Our gifted program has established and utilizes an advisory committee that reflects the cultural and socio-economic diversity of the school (and/or division’s total) student population, and includes parents, community members, students, and school staff members.</td>
<td>67</td>
<td>51</td>
<td>76.1</td>
</tr>
<tr>
<td>10e</td>
<td>Our gifted education programming staff communicate with other on-site departments, as well as other educational agencies bested in the education of gifted learners (e.g., other schools/divisions, school board members, state department of education, etc.)</td>
<td>67</td>
<td>56</td>
<td>83.6</td>
</tr>
<tr>
<td>10f</td>
<td>Our program is provided with resources to support its operations.</td>
<td>67</td>
<td>63</td>
<td>94.0</td>
</tr>
<tr>
<td>10g</td>
<td>Technological support is provided for gifted education programming services.</td>
<td>67</td>
<td>61</td>
<td>91.0</td>
</tr>
<tr>
<td>10h</td>
<td>Selections in our school’s library reflect a range of materials including those appropriate for gifted learners.</td>
<td>67</td>
<td>60</td>
<td>89.6</td>
</tr>
</tbody>
</table>

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Table 26
Program Quality Survey responses by item: Criterion – Program evaluation

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>ITEM TEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>11a</td>
<td>Concerning how our program’s value and impact are evaluated...</td>
</tr>
<tr>
<td>11b</td>
<td>The information which we collect reflects the interests and needs of most of our constituency groups.</td>
</tr>
<tr>
<td>11c</td>
<td>Our school division provides sufficient resources for program evaluation.</td>
</tr>
<tr>
<td>11d</td>
<td>Those who conduct our program evaluations are competent and trustworthy.</td>
</tr>
<tr>
<td>11e</td>
<td>The design for evaluating our program addresses whether or not our services have reached their intended goals.</td>
</tr>
<tr>
<td>11f</td>
<td>The instruments and procedures that we use for data collection are valid and reliable for their intended use.</td>
</tr>
<tr>
<td>11g</td>
<td>We utilize ongoing formative and summative evaluation strategies to promote substantive program improvement and development.</td>
</tr>
<tr>
<td>11h</td>
<td>The reports of our program evaluation results are presented in a clear and cohesive, written format.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITEM</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>67</td>
<td>54</td>
<td>80.6</td>
</tr>
<tr>
<td>67</td>
<td>50</td>
<td>74.6</td>
</tr>
<tr>
<td>67</td>
<td>56</td>
<td>83.6</td>
</tr>
<tr>
<td>67</td>
<td>55</td>
<td>82.1</td>
</tr>
<tr>
<td>67</td>
<td>52</td>
<td>77.6</td>
</tr>
<tr>
<td>67</td>
<td>52</td>
<td>77.6</td>
</tr>
<tr>
<td>67</td>
<td>59</td>
<td>88.1</td>
</tr>
<tr>
<td>67</td>
<td>51</td>
<td>76.1</td>
</tr>
</tbody>
</table>

Program administration and management, 0.76, program design, 0.80, program evaluation, 0.91, socio-emotional guidance and counseling, 0.73, professional development, 0.82, and student identification, 0.61; indicating acceptable reliability within each criterion. Alpha reliability analysis for all items across the seven criteria was 0.96, a high level of reliability for the quality indicator as a whole (See Table 27).
Table 27

Program Quality Survey reliability analysis results

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Number of Items</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum &amp; Instruction</td>
<td>8</td>
<td>0.75</td>
</tr>
<tr>
<td>Program Administration &amp; Management</td>
<td>8</td>
<td>0.76</td>
</tr>
<tr>
<td>Program Design</td>
<td>9</td>
<td>0.80</td>
</tr>
<tr>
<td>Program Evaluation</td>
<td>8</td>
<td>0.91</td>
</tr>
<tr>
<td>Socio-Emotional Guidance &amp; Counseling</td>
<td>5</td>
<td>0.73</td>
</tr>
<tr>
<td>Professional Development</td>
<td>7</td>
<td>0.82</td>
</tr>
<tr>
<td>Student Identification</td>
<td>15</td>
<td>0.61</td>
</tr>
<tr>
<td>All Criteria</td>
<td>60</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Research Question #1: Is there a correlation between the self-efficacy of a school’s principal and the availability/quality of programming for its gifted students?

In keeping with the methodological decisions outlined in the first section of this chapter, correlation analysis was conducted utilizing the respondents’ raw scores on the principal self-efficacy survey and the respondents’ responses to Item 1 of the program survey to determine the impact of self-efficacy on program availability, and the respondents’ raw scores on the principal self-efficacy survey and the respondents’ full-instrument percentage (rather than raw) scores on program survey Items 5-11 to determine program quality.
Correlations between the self-efficacy full-scale score \((r = -0.133, p = 0.211)\)

and subscale scores (internal positive: \(r = -0.101, p = 0.340\); internal negative:
\(r = -0.036, p = 0.734\); external positive: \(r = -0.164, p = 0.123\); external negative: \(r = -0.190, p = 0.072\)) and the program survey responses to Item 1 indicate no statistically

significant relationship between principal self-efficacy and the availability of gifted

programming generally (see Table 28).

Table 28

<table>
<thead>
<tr>
<th></th>
<th>(r)</th>
<th>(p)</th>
<th>(n)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Scale</strong></td>
<td>-0.133</td>
<td>0.211</td>
<td>92</td>
<td>47.5753</td>
</tr>
<tr>
<td><strong>Internal Positive</strong></td>
<td>-0.101</td>
<td>0.340</td>
<td>93</td>
<td>12.0569</td>
</tr>
<tr>
<td><strong>Internal Negative</strong></td>
<td>-0.036</td>
<td>0.734</td>
<td>93</td>
<td>17.0644</td>
</tr>
<tr>
<td><strong>External Positive</strong></td>
<td>-0.164</td>
<td>0.123</td>
<td>92</td>
<td>15.0088</td>
</tr>
<tr>
<td><strong>External Negative</strong></td>
<td>-0.190</td>
<td>0.072</td>
<td>93</td>
<td>14.9298</td>
</tr>
</tbody>
</table>

Correlations between the self-efficacy full-scale score \((r = 0.211, p = 0.108)\)

and subscale scores (internal positive: \(r = 0.083, p = 0.530\); internal negative: \(r = 0.197, p = 0.131\); external positive: \(r = 0.145, p = 0.273\); external negative: \(r = 0.093, p = 0.479\))

and the program survey response percentage totals for Items 5-11 indicate no

statistically significant relationship between principal self-efficacy and the quality

of gifted programming when it is available (see Table 29).
In an attempt to determine whether the self-efficacy full-scale or subscale score could serve as predictors of program survey scores, multiple linear regression analysis was also performed using the program survey percentage overall score as the dependent variable, and the self-efficacy full-scale and subscale scores as independent variables. The Multiple $R$ of the regression analysis did not indicate a significant relationship between self-efficacy and program availability or quality ($R = .289$), and the regression reported in the ANOVA also was not statistically significant ($F = 1.257, p = .298$). The full scale score was excluded because it was outside the range, and subscale scores (internal positive: $t = .522, p = .604$; internal negative: $t = 1.542, p = .129$; external positive: $t = -.057, p = .955$; external negative: $t = -.236, p = .815$) demonstrated no statistical relationship between variables entered (See Table 30).

It is worthwhile to note that there is no appreciable difference between the interaction of the full-scale self-efficacy scores with the studied variable and

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>p</th>
<th>n</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Scale</strong></td>
<td>.211</td>
<td>.108</td>
<td>62</td>
<td>54.224</td>
</tr>
<tr>
<td><strong>INTERNAL POSITIVE</strong></td>
<td>.083</td>
<td>.530</td>
<td>63</td>
<td>13.2602</td>
</tr>
<tr>
<td><strong>INTERNAL NEGATIVE</strong></td>
<td>.197</td>
<td>.131</td>
<td>63</td>
<td>18.9332</td>
</tr>
<tr>
<td><strong>EXTERNAL POSITIVE</strong></td>
<td>.145</td>
<td>.273</td>
<td>62</td>
<td>16.9638</td>
</tr>
<tr>
<td><strong>EXTERNAL NEGATIVE</strong></td>
<td>.093</td>
<td>.479</td>
<td>63</td>
<td>16.5856</td>
</tr>
</tbody>
</table>
those of the self-efficacy survey subscale scores with the same variable.

Therefore, from this point forward, unless one or more of the subscales indicate an interaction where one is not indicated by the full-scale score, the subscale results will not be noted.

Table 30

Correlation coefficients for program survey and self-efficacy survey results

<table>
<thead>
<tr>
<th>Variables Tested</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy Full-Scale to Program Survey Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy Internal Positive to Program Survey Score</td>
<td>.522</td>
<td>.604</td>
</tr>
<tr>
<td>Self-Efficacy Internal Negative to Program Survey Score</td>
<td>1.542</td>
<td>.129</td>
</tr>
<tr>
<td>Self-Efficacy External Positive to Program Survey Score</td>
<td>-.057</td>
<td>.955</td>
</tr>
<tr>
<td>Self-Efficacy External Negative to Program Survey Score</td>
<td>-.236</td>
<td>.815</td>
</tr>
</tbody>
</table>

Research Question #2: Does the correlation between principal self-efficacy and the availability/quality of gifted programming vary discernibly based upon school demographics or certain characteristics/attributes of the principal?

Demographic factors including size of student population, location of school, focus of school, and affiliation of school were used to sort cases for bivariate correlation analysis. Cases were also sorted based upon tenure of principal in current school, principal's belief concerning the need for gifted programming, principal's perception of his/her supervisory authority/responsibility over gifted programming, and principal's perceptions of stakeholder opinions concerning program quality.
Size of the student population served by the school correlates significantly at the $\alpha = .01$ level with availability of programming for gifted learners ($r = .589$, $p = .000$). Schools serving fewer than 301 students were far more likely not to have gifted programs in place than those serving more than 300 students (See Table 31).

Table 31
School population and presence of gifted programming

<table>
<thead>
<tr>
<th>Population Served</th>
<th>Provides Gifted Programming</th>
<th>Does Not Provide Gifted Programming</th>
<th>Did Not Indicate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>%</td>
<td>$n$</td>
</tr>
<tr>
<td>1-150</td>
<td>2</td>
<td>12.5</td>
<td>12</td>
</tr>
<tr>
<td>151-300</td>
<td>3</td>
<td>42.9</td>
<td>3</td>
</tr>
<tr>
<td>301-500</td>
<td>30</td>
<td>100.0</td>
<td>0</td>
</tr>
<tr>
<td>501 or more</td>
<td>36</td>
<td>87.8</td>
<td>5</td>
</tr>
</tbody>
</table>

For schools serving 151-300 students ($n = 3$), and for those serving more than 500 students ($n = 36$), the size of the school population appears to be significantly statistically related to the relationship between the principal's sense of self-efficacy and the quality of gifted programming offered at his/her school (see Table 32).

While this correlation appears to be logical in terms of principalship of larger schools (which typically is earned after one has served in other administrative roles within the school, and one has a somewhat "seasoned" sense of one's role and responsibilities), cause of the perfect negative relationship between school size and program quality is open to informed speculation. Three possibilities immediately come to mind.
Table 32
School population and quality of gifted programming

<table>
<thead>
<tr>
<th>Population Served</th>
<th>n</th>
<th>% of Size Group</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-150</td>
<td>2</td>
<td>12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>151-300</td>
<td>3</td>
<td>42.9</td>
<td>-1.00</td>
<td>0.00**</td>
</tr>
<tr>
<td>301-500</td>
<td>30</td>
<td>100.0</td>
<td>-0.041</td>
<td>.564</td>
</tr>
<tr>
<td>501 or more</td>
<td>36</td>
<td>87.8</td>
<td>.455</td>
<td>.008**</td>
</tr>
</tbody>
</table>

* n is too small to allow computation of meaningful statistic
** Correlation is significant at the 0.01 level.

First is the small n upon which the statistic is computed. Though there are three schools in this size category, only two principals completed both surveys. Two is a very limited group size from which to draw a conclusion, and the statistic might well become insignificant with the addition of even one additional school to the group. A second option would align with the converse of the possible explanation for the statistically significant relationship in the case of large schools — that principals of smaller schools are often starting principals with limited experience and limited knowledge of job responsibilities and requisites, an explanation which would also align with the findings concerning principals in their first year of service (to follow). A third possibility is that the small size of the student population militates against there being a "critical mass" of gifted students, and enough resources to serve them effectively, a possibility which cannot be checked by comparison to the even smaller student population grouping.
(1-150 students) because of the small number of schools in that group make statistical calculation impossible.

Analysis of school focus and the existence of gifted programming in the school produced statistically significant results (Kendall $t-b = -.230, p = .025$; Spearman $p = -.232, p = .024$). A non-parametric test was chosen in this bivariate correlation because both sets of data are ordinal, not interval, and therefore require a non-parametric measure. However, no statistically significant relationship between school focus and quality of gifted program could be determined ($r = .093, p = .390$) (See Table 33).

Table 33

<table>
<thead>
<tr>
<th>School focus and its relationship to the presence and/or quality of gifted programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-efficient</td>
</tr>
<tr>
<td>Focus to Existence of Programming</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Focus to Quality of Programming</td>
</tr>
</tbody>
</table>

* Correlation significant at the 0.05 level.

Six of seven schools whose focus was special education (85.7%), and 24 of 83 schools whose focus was general education (28.9%) did not provide gifted programming, whereas 59 of 83 schools whose focus was general education (71.1%), one of two schools whose focus was special education (14.3%) and two of two schools whose focus was gifted education (100.0%) provided gifted programming (See Table 34). It is worthwhile to note that the two schools whose focus was gifted education

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also reported high scores (in the 90th percentile) on the program quality survey (mean of all schools reporting gifted programming = 79.56%, median = 84.03%).

Table 34
Numbers and percentages of schools offering gifted programming

<table>
<thead>
<tr>
<th>School Focus</th>
<th>Provides Gifted Programming</th>
<th>Does Not Provide Gifted Programming</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>General Education</td>
<td>62</td>
<td>72.9</td>
<td>23</td>
</tr>
<tr>
<td>Special Education</td>
<td>1</td>
<td>14.3</td>
<td>6</td>
</tr>
<tr>
<td>Gifted Education</td>
<td>2</td>
<td>100.0</td>
<td>0</td>
</tr>
<tr>
<td>Did Not Respond</td>
<td>11</td>
<td>10.5</td>
<td></td>
</tr>
</tbody>
</table>

School location (urban/suburban/rural) had no statistically significant impact on the presence of gifted programming in the school ($r = .058, p = .590$), nor did it appear to impact the quality of the gifted program ($r = .064, p = .632$) offered in the school. However, a statistically significant relationship between the self-efficacy of the principal and the quality of the program ($r = .580, p = .003$) was evidenced for urban schools, though not for suburban ($r = -.168, p = .432$) or rural ($r = -271, p = .659$) schools (See Table 35).

Like school size, school affiliation was statistically significant at the .01 level when correlated to the presence of gifted programming in the school (Kendall $\tau-b = -.675, p = .000$; Spearman $\rho = -.717, p = .000$). Nonparametric tests were chosen because both datasets are ordinal, not interval. For schools which provide gifted
Table 35
The influence of school location on the relationship of program quality to principal self-efficacy

<table>
<thead>
<tr>
<th>School Location</th>
<th>r</th>
<th>p</th>
<th>n</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>.580</td>
<td>.003**</td>
<td>37</td>
<td>59.3111</td>
</tr>
<tr>
<td>Suburban</td>
<td>-.168</td>
<td>.432</td>
<td>34</td>
<td>24.1376</td>
</tr>
<tr>
<td>Rural</td>
<td>-.271</td>
<td>.659</td>
<td>7</td>
<td>17.7750</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level.

programming, affiliation was also statistically significant at the \( \alpha = .01 \) level when related to program quality \( (r = -.353, p = .006) \), though not when reviewed in terms of principal self-efficacy \( (r = .036, p = .749) \) (See Table 36).

Table 36
The impact of school affiliation on program presence, quality, and principal self-efficacy

<table>
<thead>
<tr>
<th>Impact of Affiliation on…</th>
<th>Coefficient</th>
<th>p</th>
<th>n</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of Gifted</td>
<td>Kendall ( t-b = -.247 )</td>
<td>.000**</td>
<td>94</td>
<td>-</td>
</tr>
<tr>
<td>Programming</td>
<td>Spearman ( p = -.242 )</td>
<td>.000**</td>
<td>94</td>
<td>-</td>
</tr>
<tr>
<td>Quality of Gifted</td>
<td>( r = -.353 )</td>
<td>.006**</td>
<td>66</td>
<td>9.8731</td>
</tr>
<tr>
<td>Programming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy to</td>
<td>( r = .036 )</td>
<td>.749</td>
<td>92</td>
<td>47.5753</td>
</tr>
<tr>
<td>Program Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level.

When analyzed according to affiliation, there was a statistically significant relationship at the \( \alpha = .01 \) level between program quality and principal self-efficacy for public schools \( (r = .466, p = .001) \), and for private, non-faith/church-affiliated schools \( (r = 1.000) \), but it is impossible to statistically determine the presence of...
such a relationship for private, faith/church-affiliated schools because of the small number of respondents who provided gifted programming (see Table 37).

Table 37
The impact of school affiliation on program quality as related to principal self-efficacy

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>.466</td>
<td>.001**</td>
<td>54</td>
</tr>
<tr>
<td>Private, Non-Church/Faith Affiliated</td>
<td>r = 1.000</td>
<td>- **</td>
<td>2</td>
</tr>
<tr>
<td>Private, Church/Faith Affiliated</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

n is too small to allow computation of meaningful statistic
** Correlation is significant at the 0.01 level.

Number of years of service as principal of the current school, while not statistically correlated to the existence of gifted programming within the school (Spearman $p = -.157, p = .118$), appeared to be statistically significant at the $\alpha = .05$ level when correlated to the quality of gifted programming offered to students of the school ($r = .269, p = .043$). However, numbers of years service as principal of the school appeared to have no impact on the principal's self-efficacy ($r = .180, p = .110$) (See Table 38).

When analyzed in terms of impact of the principal's length of service in the current school upon the correlation of program quality and self-efficacy, a statistically significant relationship (i.e., a perfect negative correlation) at $\alpha = .01$ between newly-arrived (less than one year in current school) principals' self-efficacy and their school's gifted program quality appeared to exist ($r = -1.000$). This finding

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indicates that within the first year of service at a school, there is a direct, inverse relationship between principal self-efficacy and gifted program quality—that the less efficacious the principal perceives him/herself to be, the better the gifted program is judged to be, or that the more efficacious the principal perceives him/herself to be, the worse the gifted program is.

Table 38
The impact of length of principal's service in current location on principal self-efficacy and the presence and quality of gifted programming

<table>
<thead>
<tr>
<th>THE IMPACT OF YEARS OF SERVICE ON...</th>
<th>COEFFICIENT</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE EXISTENCE OF GIFTED PROGRAMMING</td>
<td>p = -.157</td>
<td>.118</td>
<td>91</td>
</tr>
<tr>
<td>THE QUALITY OF GIFTED PROGRAMMING</td>
<td>.269</td>
<td>.043*</td>
<td>57</td>
</tr>
<tr>
<td>THE PRINCIPAL'S SELF-EFFICACY</td>
<td>.180</td>
<td>.110</td>
<td>80</td>
</tr>
</tbody>
</table>

*Correlation is significant at the .05 level.

One can postulate a number of possible causes for this rather unusual finding, but perhaps the most viable two are as follows: ① Anecdotal evidence suggests that the new principal often feels overwhelmed by the responsibility of the office, and questions whether s/he knows what is necessary to do the job well. If the program is already in place and is running fairly smoothly, experience dictates that it will likely continue to do so absent a major disaster or personnel change for at least a year. Therefore, one would have low principal self-efficacy with a high quality program rating possible. ② If the new principal is not aware of what constitutes high quality programming, s/he is likely to estimate the quality of any program evaluated initially as higher than experience would allow later on.
Therefore, new principals may be prone to overrating programs due to lack of knowledge of what constitutes a quality gifted program.

Though there was no statistically significant relationship between a principal's self-efficacy and gifted program quality for principals who had completed one year of service in the current school ($r = .267, p = .562$), there appeared to be a statistically significant relationship between the two again for those who have completed two to three years of service ($r = .631, p = .009$). However, for those with four or more years of service, the relationship between self-efficacy and gifted program quality once again became statistically insignificant ($r = -.178, p = .374$) (See Table 39).

Table 39

<table>
<thead>
<tr>
<th>Years Served</th>
<th>$r$</th>
<th>$p$</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than One</td>
<td>-1.00</td>
<td>- **</td>
<td>2</td>
</tr>
<tr>
<td>One (Completed)</td>
<td>.267</td>
<td>.562</td>
<td>7</td>
</tr>
<tr>
<td>Two to Three</td>
<td>.631</td>
<td>.009 **</td>
<td>16</td>
</tr>
<tr>
<td>Four or More</td>
<td>-.178</td>
<td>.374</td>
<td>27</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level/

Principals' perceptions concerning the necessity of gifted programming for fully developing the abilities of gifted students also seemed to have no statistical correlation with either the presence ($r = .132, p = .217$) or the quality ($r = .070$, $p = .631$).
$p = .594$) of gifted programming, nor did they appear to be statistically related to the principal's sense of self-efficacy ($r = .177$, $p = .118$) (See Table 40). They also had no statistical impact upon the correlation of self-efficacy and program quality for the principals ($r = .212$, $p = .132$).

Table 40

Principal's perceptions of the necessity for gifted programming and their impact on program presence, program quality, and principal self-efficacy

<table>
<thead>
<tr>
<th>Perception of the Necessity of Gifted Programming as it Influences</th>
<th>$r$</th>
<th>$p$</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Presence of Gifted Programs</td>
<td>.132</td>
<td>.217</td>
<td>69</td>
</tr>
<tr>
<td>The Quality of Gifted Programs</td>
<td>.070</td>
<td>.594</td>
<td>61</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>.177</td>
<td>.118</td>
<td>79</td>
</tr>
<tr>
<td>The Relationship of Program Quality to Principal Self-Efficacy</td>
<td>.21</td>
<td>.132</td>
<td>52</td>
</tr>
</tbody>
</table>

The degree to which the principal felt that s/he was responsible for supervision of gifted programming in his/her school was not statistically significant in terms of the availability of gifted programming ($r = .123$, $p = .370$), the quality of programming—when available—offered to students of the school ($r = .157$, $p = .258$), or the principal's self-efficacy ($r = -.069$, $p = .636$), nor was it a factor in the relationship between the quality of gifted programming and the principal's self-efficacy ($r = -.284$, $p = .179$). (See Table 41).

Finally, when the correlations were analyzed in terms of the principal's perceptions of stakeholder ratings of available programming (where offered),
Table 41

Impact of principal's self-perception of responsibility for gifted programming on program availability and quality, principal self-efficacy, and the relationship between them

<table>
<thead>
<tr>
<th>The Impact of the Principal's Self-Perception of Responsibility for Gifted Programming on...</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>the Presence of Programming</td>
<td>.123</td>
<td>.370</td>
<td>55</td>
</tr>
<tr>
<td>The Quality of Programming</td>
<td>.157</td>
<td>.258</td>
<td>54</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>-.069</td>
<td>.636</td>
<td>49</td>
</tr>
<tr>
<td>The Relationship between Program Quality and Principal Self-Efficacy</td>
<td>-.284</td>
<td>.179</td>
<td>24</td>
</tr>
</tbody>
</table>

statistically significant results were observed. When the principal's perception of stakeholder rating of performance was high, so also was the program survey score. When data were analyzed utilizing program quality survey overall percentage scores, correlation was statistically significant at the $\alpha = .01$ level for the principal ($r = .367, p = .004$), teachers in general ($r = .350, p = .007$), and teachers of the gifted ($r = .339, p = .009$), as can be seen in Table 42.

The statistical significance of the correlation did not extend to principal self-efficacy when compared to perceived ratings of any of the stakeholders at any $\alpha$ level (See Table 42), nor did it extend to the correlation between self-efficacy and program quality when any of the perceived stakeholder ratings was good or excellent.
Table 42
Principal's perceptions of stakeholder ratings of gifted programming and the principal's perception of the quality of gifted programming

<table>
<thead>
<tr>
<th>Perception of...</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>...Principal's Rating of Programming to Program Quality</td>
<td>.367</td>
<td>.004**</td>
</tr>
<tr>
<td>...Teachers' in General Rating of Programming to Program Quality</td>
<td>.350</td>
<td>.007**</td>
</tr>
<tr>
<td>...Gifted Teachers' Rating of Programming to Program Quality</td>
<td>.339</td>
<td>.009**</td>
</tr>
<tr>
<td>...Principal's Rating of Programming to Self-Efficacy</td>
<td>-.148</td>
<td>.272</td>
</tr>
<tr>
<td>...Teachers' in General Rating of Programming to Self-Efficacy</td>
<td>-.166</td>
<td>.218</td>
</tr>
<tr>
<td>...Gifted Teachers' Rating of Programming to Self-Efficacy</td>
<td>-.036</td>
<td>.791</td>
</tr>
<tr>
<td>...Parents of Gifted's Rating of Programming to Self-Efficacy</td>
<td>-.132</td>
<td>.327</td>
</tr>
<tr>
<td>...Gifted Student's Rating of Programming to Self-Efficacy</td>
<td>-.097</td>
<td>.475</td>
</tr>
<tr>
<td>...Self-Efficacy to Program Quality-Good-Excellent Principal Rating</td>
<td>.149</td>
<td>.334</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.

Research Question #3: How does the nature of the correlation between principal self-efficacy and gifted programming availability/quality vary among public schools based upon their location (urban, suburban, or rural), the size of their student population, the primary focus of the school (general education, special education or gifted education), the tenure of the current principal, the principal's sense of the degree of control which s/he has over gifted programming, and/or the opinion of the principal regarding the need for gifted programming and its impact on the quality of education available throughout the building? Responses were categorized
by affiliation, and all private schools were filtered out of the dataset. Data were then subjected to analysis by bivariate correlation for each of the factors noted.

Size of the student population served by the school correlated significantly at the $\alpha = .05$ level with availability of programming for gifted learners ($r = .289$, $p = .024$), with larger schools (i.e., those serving more than 150 students) being more likely to offer programming for gifted students than smaller ones (i.e., those serving 150 students or fewer) as can be seen in Table 43. However, the size of the school population appeared to have no significant impact on program quality when programming existed ($r = -.072$, $p = .605$), on principal self-efficacy ($r = .031$, $p = .822$) as can be seen in Table 44, or on the correlation between program quality and principal self-efficacy (population 1-150: $n = 0$; population 151-300: $n = 2$ yields too small a sample to be computed meaningfully; population 301-500: $r = .252$, $p = .299$; population > 500: $r = .173$, $p = .369$) as Table 44 illustrates.

Table 43
School population and presence of gifted programming among public schools

<table>
<thead>
<tr>
<th>Population Served</th>
<th>Sample</th>
<th>Provides Gifted Programming</th>
<th>Does Not Provide Gifted Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>$%$</td>
<td>$n$</td>
</tr>
<tr>
<td>1-150</td>
<td>2</td>
<td>3.3</td>
<td>0</td>
</tr>
<tr>
<td>151-300</td>
<td>2</td>
<td>3.3</td>
<td>2</td>
</tr>
<tr>
<td>301-500</td>
<td>22</td>
<td>36.1</td>
<td>22</td>
</tr>
<tr>
<td>501 OR MORE</td>
<td>35</td>
<td>57.3</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 44
Impact of school population size upon availability and quality of gifted programming and principal self-efficacy in public schools

<table>
<thead>
<tr>
<th>Impact of School Population Upon...</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Program Availability</td>
<td>.289</td>
<td>.024 *</td>
<td>61</td>
</tr>
<tr>
<td>Gifted Program Quality</td>
<td>-.072</td>
<td>.605</td>
<td>54</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>.031</td>
<td>.822</td>
<td>56</td>
</tr>
</tbody>
</table>

The relationship of Self-Efficacy to Program Quality

<table>
<thead>
<tr>
<th>Population</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>151-500</td>
<td>.252</td>
<td>.032</td>
</tr>
<tr>
<td>&gt; 500</td>
<td>.173</td>
<td>.369</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level.

Sample too small to compute meaningful statistic.

Analysis of school focus and the existence of gifted programming in public schools yielded no significant result ($r = -.112, p = .284$)—though predictably, schools whose focus is specifically gifted education all provided such programming.

For schools in which gifted programming was offered, there was no significant correlation between school focus and quality of gifted programs ($r = .167, p = .203$) though a statistically significant relationship did exist between school focus and principal self-efficacy ($r = -.237, p = .032$). There was no statistically meaningful correlation between program quality and principal self-efficacy for schools of similar focus which provided gifted programming (general education: $r = .220$, [general education])
$p = .132$; special education: could not be computed because sample $n = 0$; gifted education could not be computed because sample was too small) (See Table 45).

Table 45
Impact of school focus on program availability and quality, principal self-efficacy, and the relationship between the two in public schools

<table>
<thead>
<tr>
<th>Impact of School Focus on...</th>
<th>$r$</th>
<th>$p$</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Program Availability</td>
<td>-.112</td>
<td>.284</td>
<td>94</td>
</tr>
<tr>
<td>Gifted Program Quality</td>
<td>.167</td>
<td>.203</td>
<td>60</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>-.237</td>
<td>.032*</td>
<td>82</td>
</tr>
</tbody>
</table>

Principal Self-Efficacy and Program Quality

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>220</td>
<td>88</td>
</tr>
<tr>
<td>Special Education</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sample too small to compute meaningful statistic.
*Correlation is significant at the 0.05 level

As was the case with schools in general, for public schools only, there was a statistically significant, negative correlation at the $\alpha = .01$ level between program quality and self-efficacy for principals in their first year of service at the school ($r = -1.00$), and no statistical correlation between program quality and self-efficacy for any length of service at the current school beyond the first year (See Table 46).

There was also a statistically significant correlation at the $\alpha = .05$ level between years of service in the current school and quality of gifted programming
Table 46

Impact of length of service in current school on the relationship between gifted programming and principal self-efficacy

<table>
<thead>
<tr>
<th>Years Served</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than One</td>
<td>-1.000</td>
<td>**</td>
</tr>
<tr>
<td>One (completed)</td>
<td>.147</td>
<td>.782</td>
</tr>
<tr>
<td>Two to Three</td>
<td>.396</td>
<td>.144</td>
</tr>
<tr>
<td>Four or More</td>
<td>-0.052</td>
<td>.806</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.

($r = .300$, $p = .031$), but not between years of service and self-efficacy ($r = .168$, $p = .224$) (See Table 47).

Table 47

Impact of length of service in current school on the quality of gifted programming, and principal self-efficacy in public schools

<table>
<thead>
<tr>
<th>Impact of Principal's Length of Service on...</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Program Quality</td>
<td>.300</td>
<td>.031  *</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>.168</td>
<td>.224</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level.

When analyzing the effect of the principal's sense of his/her responsibility for gifted programming, there was not a statistically significant relationship between the principal's sense of responsibility and program presence ($r = .132$, $p = .386$), program quality ($r = .187$, $p = .224$) or self-efficacy ($r = -.085$, $p = .599$),
but there was a statistically significant relationship between self-efficacy and program quality for those principals, as can be seen in Table 48.

Table 48
Impact of the principal's sense of responsibility for gifted programming on the presence and quality of gifted programming, principal self-efficacy, and the relationship between the two in public schools

<table>
<thead>
<tr>
<th>Impact of the Principal's Sense of Responsibility for Gifted Programming on...</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of Gifted Programming</td>
<td>.132</td>
<td>.386</td>
<td>45</td>
</tr>
<tr>
<td>Quality of Gifted Programming</td>
<td>.187</td>
<td>.224</td>
<td>44</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>-.085</td>
<td>.599</td>
<td>41</td>
</tr>
<tr>
<td>The Relationship of Principal Self-Efficacy and Gifted Program Quality</td>
<td>.569</td>
<td>.000**</td>
<td>.38</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level.

The availability of gifted programs and the principal's agreement or disagreement with the necessity of gifted programming was not statistically significant (Spearman ρ = .051, p = .701), nor was the quality of gifted programs (r = .017, p = .907) or self-efficacy (r = .005, p = .973). However, there was a statistically significant relationship between the principal's belief that gifted programming is necessary for the full development of gifted learners' skills and the principal's recognition of gifted programming as a force of improvement for all instruction (Spearman ρ = .307, p = .024), and there was a statistically significant, positive relationship between self-efficacy and program quality for principals who
believe that gifted programming is essential to full development of gifted learners
\( (r = .288, p = .049) \) as can be seen in Table 49.

Table 49
Impact of the principal’s belief concerning the need for gifted programming on program
availability and quality, principal self-efficacy, and the relationship between the two in public
schools

<table>
<thead>
<tr>
<th>Impact of the Principal’s Belief concerning the need for Gifted Programming for Full Development of Gifted Learners on…</th>
<th>Coefficient</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Program Availability</td>
<td>Spearman p = .051</td>
<td>.701</td>
<td>56</td>
</tr>
<tr>
<td>Gifted Program Quality</td>
<td>r = .017</td>
<td>.907</td>
<td>52</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>r = .005</td>
<td>.973</td>
<td>53</td>
</tr>
<tr>
<td>Principal Self-Efficacy and Gifted Program Quality</td>
<td>r = .288</td>
<td>.049 *</td>
<td>45</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level.

Analysis of principal’s beliefs concerning the role of gifted programs in
raising instructional levels in the building and the impact of those beliefs on the
quality of those gifted programs \( (r = .169, p = .261) \), or the principal’s own self-
efficacy \( (r = .005, p = .971) \) indicated no statistically significant relationships.
However, a statistically significant relationship was seen between the principal’s
beliefs and the presence of gifted programs in the school \( (r = .183, p = .173) \). In
addition, as noted earlier, there was a significant relationship between these
beliefs and the principal’s belief concerning the necessity of gifted programming
for the full development of gifted learners’ potential \( (\text{Spearman } p = .307, \)
\( p = .024 \), and on the relationship between gifted program quality and self-efficacy

\( (r = .474, p = .001) \) for those principals who hold them (See Table 50).

**Table 50**

*Impact of the principal's belief concerning the role of gifted programming in raising instructional levels across the curriculum and gifted program presence and quality, principal self-efficacy, and the relationship between the two in public schools*

<table>
<thead>
<tr>
<th>Impact of the Principal's Belief concerning the Role of Gifted Programming in Raising Instructional Levels in General on...</th>
<th>Coefficient</th>
<th>( p )</th>
<th>( n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Program Availability</td>
<td>Spearman ( p = .307 )</td>
<td>.024 *</td>
<td>54</td>
</tr>
<tr>
<td>Gifted Program Quality</td>
<td>( r = .169 )</td>
<td>.240</td>
<td>50</td>
</tr>
<tr>
<td>Principal Self-Efficacy</td>
<td>( r = .005 )</td>
<td>.971</td>
<td>52</td>
</tr>
<tr>
<td>Principal Self-Efficacy and Gifted Program Quality</td>
<td>( r = .474 )</td>
<td>.001 **</td>
<td>43</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.**  
*Correlation is significant at the 0.05 level.*

**Research Question #4:** Is there a difference in the availability/quality of programming for gifted learners based upon the affiliation of the school (public, private-not faith/church affiliated, private faith/church affiliated), and if so, does such a difference correlate with the school principal's self-efficacy?

In terms of the availability of gifted programming, the relationship of school affiliation with program availability was statistically significant at the \( \alpha = 0.01 \) level (Spearman \( p = -.717, p = .000 \), as is the relationship between school affiliation and the quality of gifted programming offered \( (r = -.353, p = .006) \). However, a
significant relationship between principal self-efficacy and school affiliation was not so indicated ($r = .036, p = .749$). It is interesting to note that in the case of the relationships between school affiliation and the presence and quality of gifted programming, those relationships were negative ones, which, because of the statistical coding of school affiliation information, was indicative of a trend toward diminished or inferior gifted programming according to the school's affiliation.

Specifically, the data indicated that public schools are more likely to have programs for gifted students than private non-faith/church-affiliated schools, which are more likely to have gifted programming than private faith/church-affiliated schools, and that the quality of those schools was more likely to be higher in public than in private schools (See Table 51).

Table 51

<table>
<thead>
<tr>
<th>Relationship of school affiliation with gifted program availability, quality, principal self-efficacy, and the relationship between the latter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coefficient</strong></td>
</tr>
<tr>
<td><strong>SCHOOL AFFILIATION AND PROGRAM AVAILABILITY</strong></td>
</tr>
<tr>
<td><strong>GIFTED PROGRAM QUALITY</strong></td>
</tr>
<tr>
<td><strong>PRINCIPAL SELF-EFFICACY</strong></td>
</tr>
<tr>
<td><strong>PRINCIPAL SELF-EFFICACY AND GIFTED PROGRAM QUALITY</strong></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.**

But is there a correlation between gifted program availability and quality in schools within an affiliational class and the self-efficacy of the principals of those
schools? Analysis of the data indicated that there is. For principals of public schools, there is a statistically significant relationship between self-efficacy and program quality ($r = .466, p = .001$), as there was for principals of private, non-church/faith-affiliated schools ($r = 1.000$), and for principals of private, church/faith affiliated schools ($r = 1.000$) (See Table 52).

Table 52
Impact of school affiliation with the relationship of gifted program quality to principal self-efficacy

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>$r$</th>
<th>$p$</th>
<th>$n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>.466</td>
<td>.001 **</td>
<td>50</td>
</tr>
<tr>
<td>Private, Non-Church/Faith Affiliated</td>
<td>1.000</td>
<td>- **</td>
<td>2</td>
</tr>
<tr>
<td>Private, Church/Faith Affiliated</td>
<td>1.000</td>
<td>- **</td>
<td>2</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.

A comparison of the possibility of a relationship between principal self-efficacy and the presence of gifted programming in the principal's school within a school affiliation category (i.e., public, private non-affiliated, private affiliated), rather than across all affiliational categories, revealed no statistically significant results for principals within the classes of all public ($r = -.140, p = .303$), all private non-church/faith affiliated ($r = -.394, p = .260$), or all private church/faith affiliated ($r = .298, p = .262$) schools. So while relationships between the affiliation of the school and the existence and quality of gifted programming within it were supported by study data, it appears that any correlation between
principal self-efficacy and the presence of gifted programming within that principal's school was lacking. In other words, though the school's affiliation is a good predictor of program presence and quality, it is a poor predictor of principal self-efficacy, and a poor predictor of whether there will be any relationship between the principal's self-efficacy and the presence of gifted programming within the school (See Table 53).

Table 53
Impact of school affiliation with the relationship of gifted program presence to principal self-efficacy

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>r</th>
<th>p</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>-140</td>
<td>.303</td>
<td>56</td>
</tr>
<tr>
<td>Private, Non-Church/Faith Affiliated</td>
<td>-394</td>
<td>.260</td>
<td>10</td>
</tr>
<tr>
<td>Private, Church/Faith Affiliated</td>
<td>.298</td>
<td>.262</td>
<td>16</td>
</tr>
</tbody>
</table>

There also appeared to be significant relationships between some demographic and principal characteristics other than school affiliation, and the existence of quality gifted programming in schools. For instance, when the relationship between quality gifted programming being present in a school with the principal's perception of how stakeholder groups would evaluate that program was examined by means of bivariate analysis, there was a significant correlation at the $\alpha = 0.01$ level between the principal's own rating of the program and its quality (as evaluated by the sum of the category scores) ($r = .329, p = .009$), between the principal's sense of how all teachers in the building would rate the program and its
quality \((r = .301, p = .019)\), and between the principal's sense of how teachers of the gifted would rate the program and its quality \((r = .480, p = .000)\) (See Table 54).

### Table 54

**Correlations—Principal’s perception of stakeholder rating of gifted programming, and gifted programming quality**

<table>
<thead>
<tr>
<th>Principal’s Perception of...</th>
<th>(r)</th>
<th>(p)</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal's rating of gifted programming to Program Quality Survey score</td>
<td>.329</td>
<td>.009**</td>
<td>62</td>
</tr>
<tr>
<td>All teachers' rating of gifted programming to Program Quality Survey score</td>
<td>.301</td>
<td>.019**</td>
<td>61</td>
</tr>
<tr>
<td>Teachers' of the gifted rating of gifted programming to Program Quality Survey score</td>
<td>.480</td>
<td>.000**</td>
<td>61</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.

All of these significant relationships suggest that either ① the principal is alert to what comprises quality gifted programming, and is attuned to the school's stakeholders, a hypothesis which, though not supported significantly by bivariate analysis of the principal's self-perceived responsibility for supervision of gifted programs against percentage scores \((r = .314, p = .076)\), does receive support when compared with categorical raw scores which are weighted toward issues of participant selection and program design and administration \((r = .321, p = .018)\), or ② the principal does not have a clear sense of what comprises a high quality gifted program, a possibility supported by anecdotal evidence from professionals in the
field. Tenure of the principal in the school may also be a factor in the quality of its
gifted programs ($r = .269, p = .043$).

**Summary:**

Four questions foundational to this study and integral to its purpose were examined in this chapter. Key findings related to those questions were as follows:

1. There was no statistically significant correlation between the self-efficacy of a school’s principal and the availability or quality of programming offered to gifted students in that school. While most principals reported that they believed that gifted programming was essential to develop gifted learners’ abilities (76.2%) and that gifted programming served as a basis for raising the instructional level of all classrooms (71.4%), and while a majority of the principals of schools which provide gifted programming services (60.4%) would like to see that programming increased, there appeared to be no correlation between either the availability or quality of programs in these principals’ schools and the principals’ self-efficacy scores, whether measured on a whole-instrument basis, or subscale by subscale.

The one exception to this finding, however, was that for principals who were serving in their first year as principal of their current school, there was a perfect negative correlation ($r = -1.000$), and therefore an
inverse relationship between program quality and principal self-efficacy, a phenomenon which was discussed at greater length earlier in the chapter.

2. The availability and quality of gifted programming in a school, and the relationship between the self-efficacy of a school's principal and the availability/quality of programming provided to gifted learners in that school did vary discernibly based upon school demographics and certain characteristics and/or attributes of the principal. Specifically the following were observed:

- There was a significant relationship between the size of the student body served by the school and the availability of programming for gifted students in the school. Specifically, schools serving 300 or fewer students were more likely not to have gifted programming in place than those serving more than 300 students.

- For schools which had gifted programming, the size of the student body appeared to exert some influence on the relationship between the principal's self-efficacy and the quality of the gifted programming offered. What was not able to be verified was the cause of this finding, due to a very small n in two of the respondent groups.
• School focus impacted the availability of gifted programming. In schools whose primary focus was other than gifted education, programming for gifted learners was more available in schools focused on general education (82.9%) than on those whose primary focus was special education (14.3%). Obviously, 100% of those schools whose primary focus was gifted education reported provision of a gifted education program in the facility.

• The relationship of school focus and the quality of gifted programming was not statistically significant; however, both respondent principals of schools whose focus was gifted education rated their programs in the 90th percentile range, based on the NAGC categorical criteria overall score.

• For principals of schools whose focus is general education, there was a statistically significant correlation between principal self-efficacy and gifted program quality. The small number of respondents from special and gifted education facilities made meaningful statistical analysis of the relationship between self-efficacy and gifted program quality impossible.

• A relationship between school affiliation and the availability and quality of gifted programming, and principal self-efficacy and
gifted program quality, was supported. Public schools were found to be far more likely to have gifted programming available than were private schools (non-faith/church affiliated and faith/church-affiliated), and the quality of programs in public schools—when present—was more likely to be higher than that of non-public schools. Though no statistically significant relationship between principal self-efficacy and gifted program quality was found for public schools, a strong, statistically significant, positive relationship was found between the two for private non-faith/church affiliated schools.

- Length of service as principal of one's current school positively impacted the quality of gifted programs available to students of that school, but had no effect on the availability of gifted programming at the school. While principal self-efficacy appeared not to be affected by the number of years service at the school as its principal, for principals in their first year of service at the current school, a statistically significant, negative relationship between self-efficacy and program quality was observed.

- Principals whose perception of stakeholder ratings of the school's gifted programming was high tended to rate the quality of the gifted programs highly as well.
3. For public schools, principal self-efficacy, gifted program quality, and the relationship between the two varied based upon school demographics and certain attributes of the principal.

- The larger the school's population, the better the probability was that gifted programming was available to its students. Schools serving more than 150 students were far more likely to offer their gifted students specific programming. School population size appeared to have no impact on the quality of gifted programs where offered, on principal self-efficacy, or on the relationship between the two.

- Length of service as principal at the current school positively impacted the quality—but not the availability—of gifted programming at the school, but has no demonstrable relationship to principal self-efficacy or—with the exception of first year principals, for whom it is negatively related—the relationship between self-efficacy and gifted program quality.

4. School affiliation was strongly related to both the availability and quality of gifted programming in the school, but appeared to have no connection to principal self-efficacy. Gifted programming was more available in public than in non-public schools, and the perceived quality of gifted programming was higher in public schools than that offered in non-public schools.
5. Certain demographics and principal characteristics served as predictors for the existence of quality gifted programming in a school.

- Principals who perceive that stakeholders rate gifted programs highly tended to consider the quality of those programs to be high as well, suggesting either that they are attuned and sensitive to stakeholder perceptions of program quality, and alert to the attributes of quality gifted programming, or that they are unaware of the attributes of quality programming, and therefore rate their programs more highly than they ought, and assume that others rate them as highly as they do.

6. Though many principals rated the quality of their programs highy (i.e., meeting more than 70% of the criteria), no respondent's program met 100% of the minimal attributes set forth by the NAGC for quality gifted programs.

- In the criterion area of program design, principals most often reported that inequitable funding, inflexible grouping, and the lack of external program review were the areas of need for their programs. Strengths in this area included accessibility to services to all gifted learners and provision of those services in most locales.

- Principals' responses to the criterion area of socio-emotional counseling and guidance placed that criterion at the lowest of the
seven criteria. With the exception of one item, more programs did not provide the service listed than did. Particularly troubling in this area was the inability of gifted students to meet with counselors who are specifically trained in meeting their needs, lack of appropriate career guidance services geared to the gifted learner, and the lack of services to at-risk gifted learners (who were more likely not to receive any special help or services than they were to receive it) and gifted underachievers (who were as likely to be exited from the program as they were to be worked with and counseled).

- Principals rated their gifted programs most highly in the area of curriculum and instruction, yet even in that area, no program met all eight NAGC criterion items. In fact, principals' responses indicated two areas of concern: lack of flexibility in instructional settings as well as in instructional pacing, and primary delegation of responsibility for curricular differentiation for the gifted to classroom teachers.

- In more than one-third of all programs, school personnel were not provided time to plan for differentiation, were not afforded released time to attend professional development activities, were not required to be certified or endorsed in the academic discipline in which they taught, and were not required to be certified or endorsed in the field.
of gifted education. In almost twenty percent of programs, the coordinator of gifted education did not need to complete coursework or staff development in gifted education to be deemed appropriately qualified to perform his/her responsibilities.

- Selection for participation in gifted programming, though available to most via a multitude of nomination sources, could be denied on the basis of one instrument, and would not likely be repeated at least once in each major educational span from K-12 (elementary, middle grades, high school).

- Evaluation of gifted programs, in nearly one-quarter of all respondents' cases, was considered underfunded, used instruments of questionable validity and reliability, was not ongoing, was not reflective of stakeholder concerns, did not address whether the services met their goals, and did not report those results in a clear, concise, cohesive, written format.
Discussion:

Analysis of study data revealed no relationship between principal self-efficacy and either the availability of programming for gifted learners in the principal’s school, or the quality of that programming when it existed. Neither correlation analysis to determine statistical relationship ($p = .108$), nor multiple regression analysis to determine whether full-scale or individual subscale self-efficacy scores could serve as predictors of program availability or quality ($R = .289$), disclosed any connection between the two. How could this be?

One possible answer to the dilemma may rest in the latter work of Bandura (1997) and that of Tschannen-Moran, Woolfolk Hoy, and Hoy (1998), which posits that self-efficacy and locus of control are separate entities, and that though one may perceive oneself as efficacious, one may still feel unable to affect the process or operation which will shape the final outcome of the endeavor. This possibility is further enhanced by Tschannen-Moran, Woolfolk Hoy, and Hoy's (2001) study which
supports Bandura's (1998) assertion that persons assume greater responsibility for positive results than they do for negative ones, and are more confident in their ability to produce a positive result than they are in their ability to avoid a negative one. In short, the findings of this study regarding the relationship of self-efficacy and gifted program quality may well support Bandura's (1986) distinction between efficacy expectations and outcome expectations.

Adding to the speculation concerning the reason for the study's demonstrated lack of significant relationship between principal self-efficacy and gifted program quality, by presenting yet another possibility for its cause, is Guskey's (1994) work with Passaro, which suggests that the concept of internal and external causality—present in both locus of control and attribution theory of motivation literature—may more accurately reflect two separate dimensions, rather than two extremes of a single dimension. Guskey and Passaro suggest that internal causality is better represented by the concept of personal power, influence and impact on teaching, and external causality by the concept of one's perceptions of influence, power and impact outside the scope of one's control. If this is true, then this study's findings concerning the lack of a significant relationship between principal self-efficacy and gifted program quality, when viewed in light of the principals' expressed perceptions of the degree of influence which they—rather than the school division or board or gifted education supervisor—exert over gifted
programs in their buildings, could be viewed as expected rather than anomalous, and supportive of Bandura’s more recent (1997) work, as well as that of Tschannen-Moran, Woolfolk Hoy, and Hoy (2001, 1998), that efficacy and outcome expectations are separate and distinct concepts, and not one and the same.

A single exception to this apparent lack of connection between self-efficacy and gifted program availability and quality was found in this study, but does little to shed light on the dilemma, because the correlation demonstrated is that of a perfect, negative, statistical relationship ($r = -1.00$) between the self-efficacy of principals serving in their first year at their current school and the quality of gifted programming available at that school. To what can this be attributed? Experience would cause one to posit two possible alternatives.

One possible explanation for this unusual phenomenon—that the less efficacious the principal perceived him/herself as being, the better the quality of gifted programming in the school and the more self-efficacious the principal the lower the quality of gifted programming—is supported by the experience of the writer and anecdotal evidence from the field: that beginning principals often feel overwhelmed by the responsibilities of their new roles, and underprepared to meet those role expectations, thus creating a setting where low self-efficacy would be the expectation. Meanwhile, the program, if its staff is established in a routine, and as long as resourcing is adequate, will likely continue along on the educational
equivalent of autopilot for at least a year. Therefore, the beginning principal, perceiving no problems in the program, would tend to rate the program highly, while rating his/her own efficacy low.

The second option for this finding of a negative relationship between principal self-efficacy for beginning principals and gifted program quality is suggested by the first: that principals, especially beginning principals who do not come from a background of gifted education, may not be cognizant of the attributes of quality gifted programming, or worse yet, may not even be aware that such attributes exist and have been identified and published, thus interpreting a lack of obvious “trouble” in a program as evidence of quality in the program.

This finding then, though it appears to fly in the face of studies which portray the principal as the driving force behind changes in school culture leading to improvement of instruction, and as the predominant force in instructional leadership/instructional leader in the school (Fullan & Stiegelbauer, 1991; Valentine & Bowman, 1991; Ohde & Murphy, 1993; Deal & Peterson, 1994; Marsh, 1997), may in fact merely be reflective of the stress inherent in assuming a new and greater career responsibility, and representative of the possible need of beginning principals for better pre-appointment training and initial mentorship in their new role.
If the findings of this study concerning the relationship of self-efficacy and gifted program quality are puzzling, then making them even more so is the realization that most respondents—whether or not their schools offered gifted programming—indicated that they believed gifted programming was essential to the development of gifted learners' abilities (76.2%), that it served as a basis for raising the instructional level of all classrooms (71.4%), and that—for those whose schools provided gifted programming—a majority (60.2%) expressed a desire to see gifted programming increased/strengthened. To what can this apparent disconnect be attributed?

Though anecdotal evidence and years of the researcher's personal experience support that factors of school size and budget, and of school division policy and emphasis, can be perceived as limiting the full potential of the principal to act creatively when dealing with curricular issues within his/her building, still the surprising difference between the expressed beliefs and desires of principals concerning gifted programming and their schools' provision of programming for gifted students is cause for concern. In fact, while principals may truly be constrained by budgetary and organizational factors, and thus limited by external forces in the amount of impact they can have on gifted programming in their schools, experience in the field suggests that another factor may be involved: that the principal is verbalizing an educationally "appropriate" sentiment—that gifted...
education is beneficial and necessary—when, in fact, gifted programming is not truly a value to him/her. Unfortunately, this study is ill prepared to address that issue directly, though findings concerning the state of gifted education within the study area do address the issue indirectly.

Data gathered in this study present a picture of gifted education which is disquieting on two fronts: ① a concern about the quality and nature of gifted education programming in the area, and ② issues of appraisal of gifted program quality. Specifically, the data raise the questions of whether services to gifted learners in the area are accessible, appropriate and adequate, and whether principals do, in fact, appraise the quality of the gifted programming available to students in their schools accurately.

While most program quality ratings submitted by principals of schools which offered specific, differentiated services to gifted learners, scored at a level of seventy percent—indicating that at least seventy percent of program criterial items were present in the school—no respondent’s program reached the level of 100% provision of services at standards deemed by NAGC to be minimal for acceptable gifted program quality. In fact, even the programs of the two schools whose focus was gifted education scored only in the 90th percentile.

More distressing still is the reality that study data indicate that even in criteria in which principals believed their programs performed strongly, such as
curriculum and instruction, there was a great disparity between NAGC minimal standards and program attributes. For instance, more than 90% of principals indicated that their school's gifted program followed the curricular and instructional models provided by the division, and that gifted students received instruction with strategies and objectives appropriately differentiated from those received in the regular classroom. Yet just as many indicated that it is the classroom teacher who is responsible for actually doing the differentiation, which can be problematic when seen in light of other data which indicate that only about 65% of teachers are actually given planning time to prepare for differentiated instruction, that only 60% of schools expect teachers of the gifted to have either certification/endorsement in their academic discipline (and thereby a level of expertise which would allow for the depth and complexity of understanding of central issues and concepts within the discipline appropriate to differentiation), and that even less expect that teachers of the gifted will have extensive expertise and/or certification/endorsement in gifted education. Compounding the problem are the findings that only about 65% of schools/divisions require their teachers of the gifted to attend at least one professional development which specifically addresses issues of relevance in teaching the gifted per year, and that only 60% of those schools will give their teachers released time to attend such professional development activities, a problem compounded by the finding that qualified administrative assistance may not be available to teachers in how to differentiate
appropriately, since only 80% of schools expect that the designated coordinator of
gifted education will have completed coursework or staff development in gifted
education.

Other areas of curriculum and instruction were also found lacking according
to study data. Flexibility of learning environments and arrangements was available
in less than 60% of programs, and one-quarter of respondents' programs provided
no way for students to display mastery of essential skills and thus to accelerate
their learning pace, another area of differentiation which is essential to the
provision of adequate services. When considered in light of the literature of the
field, which holds differentiation as primary to the provision of appropriate
educational services to the gifted (NAGC, 1998; Sternberg, 1996a; Feldhusen &
Moon, 1995; VanTassel-Baska, 1995, 1994, 1992), the data from this study are
disconcerting.

But curriculum and instruction were considered to be the strongest area of
gifted programs as discerned by the principals who responded to this study. What,
then, was the condition found to be the weakest? The criterion area of provision of
appropriate socio-emotional guidance and counseling, in which virtually all
respondent's programs met less than half the minimal standards, has that dubious
distinction. In fact, only one criterial item, the provision of affective curriculum
(though how, or how well, that curriculum is provided is not known), was perceived to be met by more than 50% of participants.

Generally, principals (65%) indicated that their gifted students did not have access to counselors who were both knowledgeable of the unique social and emotional needs of the gifted, and skilled in meeting those unique needs, though such access is vital to a quality gifted program (Coleman, 1995; Lovecky, 1994; Silverman, 1993a; Gross, 1992; Shore, Cornell, Robinson & Ward, 1991; Piechowski, 1989). This service deficit negatively impacts the provision of appropriate career guidance consistent with gifted students' strengths and matched to their needs, making it inaccessible to participants of more than 70% of respondents' programs, though such guidance services are also deemed necessary for provision of high-quality programming for the gifted, especially for those in middle and high school grades (VanTassel-Baska, 1993a; Silverman, 1993b).

More disconcerting still, particularly in light of Peterson's (2001) study of successful adults who were identified in adolescence as underachievers, was the finding that fully half of underachievers in gifted programs are exited from the programs because of problems associated with their underachievement, and that more than 50% of at-risk gifted students have no access to the special attention, counseling, and support which will help them to reach their full potential, practices which seem at crossed purposes with recent recommendations for encouraging all
underachievers, and especially gifted underachievers, to realize their full abilities (Reis & McCoach, 2000).

That the gifted experience cognitive and affective development in an asynchronous manner, and have specific affective needs that differ significantly from their chronological age peers (Silverman, 1993a, 1989; Lovecky, 1993; Shore, Cornell, Robinson & Ward, 1991; Csikszentmihalyi, 1990; Piechowski, 1989; Dabrowski, 1938) is well documented. Services for at-risk students, especially in the development of resiliency among those students, focuses on providing not only specialized cognitive, but also affective (i.e., counseling) services to those students and their parents (Brown, D'Emidio-Caston & Benard, 2000). Yet, while every gifted program attempts to meet the cognitive needs of its participants, more than half of the programs at respondents' schools failed to provide appropriate services to meet the affective needs of at-risk program participants, choosing to exit rather than to counsel students who were academically qualified to enter the programs, but who then, for whatever reason, failed to perform at a level deemed appropriate for continued placement in the program. When considered in light of Sadowski's (1987) findings regarding characteristics of gifted high school dropouts, which included many factors considered indicators of "at-risk-ness" among students—including instability of home environment, incomplete or inappropriate gifted curriculum, poor peer relationships and poor social adjustment, and lack of appropriate counseling
services, and those identified by Renzulli & Park (2000) also considered as indicators of potential "at-risk-ness"—including low SES and low academic achievement of parents—these practices should raise red flags for the field of gifted education.

So also should the study's findings that only about 80% of respondents' programs initially screen potential participants from the entire school's roster (typically eliminating those students whose performance is lowest—some of whom may, in fact, be underachieving and/or at-risk gifted students), and that 40% of respondents' programs rely on instruments which may not be provided in the language most familiar and most fluent to the student for language-dependent assessment. In fact, many (Sarourphim 2001, 1999; Clasen, Middleton & Connell, 1994; Plucker, Callahan & Tomchin, 1996; Baker, 1996) would raise the issue of the fairness of traditional means of identification of the gifted, citing data which indicate that standardized tests are prone to screen out potential candidates because of ethnic, gender, and/or linguistic bias, a finding consistent with those of VanTassel-Baska, Patton & Prillaman (1989), VanTassel-Baska et al. (1991), and Borland, Schnur & Wright (2000).

Recognizing that less than two-thirds of study respondents' gifted programs—including those which cross the spectrum of grades K-12—provide for screening of participants at least once in each major grade cluster (elementary,
middle and high), these data suggest a pattern which has the potential to deny services to at-risk students who may, in fact, be entitled to them. The reality that in 70% of those programs which do provide for multiple screenings in elementary grades, and 80% of study respondents' programs across the board, a potential participant may be denied admission on the basis of the results of one assessment instrument or set of results, should raise alarms for all who care about the state of gifted education, and indicate an area which the field of gifted education must address quickly and with vigor.

Further compounding the problem is the matter of accurate appraisal of the quality of gifted services provided. Personal exposure to principals, administrators in training, and their schools' gifted programs, as well as conversations with trained evaluators in the field of gifted education, raises the question in this writer's mind of whether principals accurately rate the quality of their programs, or whether they consider them to be of higher quality than external evaluators find them to be — an issue which deserves further study and discussion, since more than one-quarter of respondents indicated that there is often insufficient resourcing for program evaluation, and therefore, by implication, that such evaluation must be conducted by those closest to the program. Based on cursory observations of a limited number of participants' programs in local schools, which this researcher
made over a period of six months during the course of this study, principals do tend to rate their gifted programs more highly than the outside observer does.

The apparent contradiction between what principals hold to be valuable, and the impact of those values on their practice of instructional leadership, is a disappointing finding, not in keeping either with Bandura's (1974) description of efficacious individuals as persons who set self-generated standards and support novel ideas, practices, or theories which are often unpopular—surely a descriptor for gifted programming in many communities—or with Miskel's (1977) research linking effectiveness and innovation with self-perception of efficacy. The finding, which mirrors that of Sanders (1995), whose study of principal self-efficacy (using the Hillman instrument) and program initiation reported a similarly disappointing lack of observable correlation between self-efficacy and provision of programs perceived by the principal to be important, raises questions of whether principals actually possess the requisite instructional leadership ability, and the skills to envision, design, and collaboratively implement change in the school.

School demographics and certain characteristics of the principal had an impact on both the availability and quality of the school's gifted programming, as did the relationship between the principal's self-efficacy and the availability and quality of gifted programming in the principal's school. Predictably, smaller schools—those serving three hundred or fewer students—were less likely than
larger ones to provide services for gifted students (12.5% of those serving 1-150, 42.9% of those serving 151-300, 100% of those serving 301-500, 87.8% of those serving 501 or more students). Limited resources and space, of necessity, limit program availability. Likewise, common sense suggests and the data confirm that the school's primary educational focus impacts gifted service availability. Schools which primarily serve special education students typically do not offer gifted services, though twice-exceptional students—the LD/gifted and others—are now receiving more notice and some services, while general education facilities typically serve students at all levels.

For principals of public schools who expressed a belief that gifted education was necessary and valuable, a relationship was observed between self-efficacy and gifted program quality \( (p = .049) \), which would align with the work of Bandura (1974, 1993), Miskel (1977), Hoy and Woolfolk (1993), and Hipp (1997), all of whom propose that higher levels of self-efficacy are predictive of higher levels of motivation to succeed and to cause positive change. Regrettably, limited numbers of returns from principals of private schools made correlation analysis of self-efficacy and program availability/quality statistically meaningless for those principals, but further study of these groups might prove worthwhile.

Affiliation of the school in which the principal serves appears to be an important factor both when analyzing gifted program availability, and when
considering the relationship between principal self-efficacy and program quality.

The Commonwealth of Virginia, like most other states in the country, mandates that schools under the jurisdiction of, and accredited/certified by its Department of Education, provide appropriate educational services for all learners. Therefore, all public schools, by statute, must provide programming for gifted learners, leaving only the definition of what constitutes "appropriate" services open to definition at the local level. So it is no surprise that the principals of all public schools reported that programming was available to gifted students in their schools, nor is it cause for wonder that public schools were statistically more likely to offer gifted programming than private (non-faith/church-affiliated and faith/church affiliated) schools ($p = .000$). Also, because of level of funding and per-pupil budget considerations, it is not unexpected that the quality of gifted programs in public schools was higher than that provided by private schools ($p = 0.34$).

What is interesting to note in this situation is that for principals of public schools in general (all of which provide gifted programming), no statistically significant correlation between principal self-efficacy and program quality was found ($p = .156$), but for private non-faith/church-affiliated schools which offered gifted programming, a perfect correlation ($r = 1.00$) was seen between the two. (The small sample size of the private faith/church-affiliated schools offering gifted programs limits the interpretation of this correlation.)
One must question why there is a demonstrable relationship between principal self-efficacy and the availability/quality of gifted programming in private non-faith/church-affiliated schools, but not in public schools. Is it because legislative fiat and central office specialists produce and direct gifted programs across the division, leaving the principals to feel relatively powerless to impact the programs either positively or negatively? Or is it because in the non-public schools the principal is truly free—within the constraints of budget, of course—to be the initiator/agent of change (Walker & Vogt, 1987; Fullan & Stiegelbauer, 1991), the promoter and protector of values and guardian/presenter/interpreter of vision (Marsh, 1997; Lashaway, 1997b; Evans, 1995; Bergman, 1992), and the forceful-yet-enabling leader (Deal & Peterson, 1994; Kaplan, 1996)?

One final observation is worth noting in the discussion of the effect of school affiliation upon gifted programming availability/quality and its relationship to principal self-efficacy. Other than the difference in the relationship of self-efficacy to gifted program quality (in schools which offer gifted programming) between principals of public and private non-faith/church-affiliated schools, and the lesser availability of gifted programming in private schools of both types (which is often predictable because of the size of the school), the impact of school demographics and principal characteristics on principal self-efficacy, on gifted
program availability and quality, and on the correlation between the two, is highly consistent regardless of the school’s affiliation.

The principal’s beliefs concerning the necessity of gifted education for optimal development of gifted students’ abilities, and the utility of gifted education as a driving force behind the raising of levels of instruction in all classrooms, do not stand as forces impacting the availability and quality of gifted programming at his/her school. Two other attributes of the principal appear to affect both.

Principal ratings of the quality of gifted programming available to students in their schools are positively related to the principal’s perception of stakeholder opinions of that programming. While the high level of correlation between the overall program quality score and the specific score for the principal-as-stakeholder ($p = .004$) lends credence to consistency of evaluation on the part of the principal, the strength of the relationship between program quality and the principal-perceived ratings of the gifted program by teachers in general ($p = .007$), and by teachers of the gifted ($p = .009$), either affirms the role of the principal as one who seeks out stakeholder perceptions and participation, not only in decision-making and dilemma resolution, but also in the clarification of needs and issues, and as one who facilitates and guards communication, especially in times of conflict (Lashaway, 1997a; Sanders, 1995; Chamley, McFarlane, Young & Caprio, 1992; Frase & Melton, 1992; Roeper, 1986), or affirms the discrepancy between principals'
evaluation of their programs and the actual nature of those programs. This matter of potentially inaccurate perceptions is one which can be addressed within the design of future studies by selective, in-depth site visits of a portion of respondents' programs.

Conclusion:

Though principal self-efficacy is important to the successful completion of the many responsibilities of the principal, especially in the area of instructional leadership, it did not have a strategic or significant relationship to the provision of appropriate educational programs to gifted students within the principal's school for participants in this study. The same can be said concerning the relationship of principal self-efficacy to the perceived quality of gifted programs when they did exist, except in the case of principals of private, non-faith/church-affiliated schools, where a positive correlation was evidenced.

For participants in this study, school size and affiliation, and the personal characteristics of the principal as "in-touch" leader emerged as more reliable predictors of the existence of gifted programming in the principal's school, and of the quality of programming when it existed.
Practical Implications of the Study:

For the field of educational leadership, the implications of this study are numerous and consequential. Principals are expected to serve as effective instructional leaders, leaders who are prepared to meet the needs of all their charges. As such, they must be equipped with the knowledge of the needs of students at every level of ability. Principals must be aware of the divergent needs of special populations, including the gifted, and they must understand how the differential characteristics and needs of the gifted impact their cognitive and affective growth, and their interaction with chronological peers.

For schools of higher education, this means that programs which focus on principal preparation and educational leadership must provide courses which not only acquaint those aspiring to leadership with the needs of the gifted, but which also give them training identifying the gifted, and designing programs which meet their cognitive and affective needs. For programs of leadership training within schools and school divisions, there must be a concentration on developing administrative awareness at all levels concerning the needs of gifted students, and the resources available within the school/division for meeting those needs.

If principals are to serve as effective educational leaders, they must be equipped with the skills to translate educational theory into educational practice, specifically in the area of instructional supervision. It is not enough for a principal
to know what constitutes good instruction. The principal must have the ability to translate what s/he knows to be right into appropriate curricular plans and interventions in order to serve the needs of a wide range of students. Likewise, it is not enough for principals to know what is appropriate programming. They must also be able to put the knowledge to use in the creation and maintenance of high-quality services for learners at all levels.

Schools of higher education which offer training for instructional leaders must therefore design programs of study which go beyond theory to practice, and must take participants beyond knowledge and comprehension of what is appropriate for gifted learners to (1) solid application of that knowledge; (2) significant synthesis of creative initiatives in programming and coursework, focused on depth and complexity of material and organized to facilitate the gifted learner's interaction with the material; (3) meaningful analysis of current programs and initiatives in order to determine efficacy and efficiency, quality of instruction and interaction, success in meeting curricular goals, and provision of adequate services; and (4) insightful evaluation of current programs in order to determine whether they should be maintained at status quo, improved, or deleted, and to weigh the potential value of proposed new programs and emphases to meet the needs of gifted students. Such programs should involve not only classroom study, but active, hands-on internships.
and collaborative ventures in settings where real-world products can be produced and utilized by real learners.

Likewise, schools and school divisions have an obligation to give their instructional leaders the training they need to determine the value of programming and course offerings currently in place in their schools, to determine learner needs and where those needs are not being met, to collaboratively plan for programs and/or courses where those programs/courses are indicated, and—as guides for their faculty—to review and revise educational plans to facilitate maximal learning.

If principals are to serve as effective educational leaders, they must be equipped with the skills to communicate effectively—to sense as well as to hear stakeholder concerns, issues and perceptions, and to craft, guide and encourage communication among stakeholders and stakeholder groups. They must be equipped to see beyond what is to what should be, to effectively share that vision with stakeholders, to protect the vision when it comes under attack, and to promote its attainment.

Higher education must be at the forefront of this emphasis on effective communication, modeling through interactions with their students how educational leaders should handle communication with their constituencies. Those who train graduate students for educational leadership must encourage those learners to dream dreams, to envision what can be, to listen to the needs of their communities,
to communicate the vision appropriately so that the community can "own" it, and to develop plans to bring visions into reality, thus meeting expressed needs. Local schools and school divisions must encourage their leadership and those who aspire to leadership to be first listeners, then speakers, to first ask, then tell, and to collaborate effectively within the culture of the school/division and of the larger community which they serve.

For the field of gifted education, this study also has significant implications. If principals are to adequately serve gifted learners in their schools, they must be made aware that those students exist. Far too many schools have no gifted services because principals believe that all their students are gifted, a belief fostered by popular writers in the field of education, and closely akin to "all students are learning disabled". If the field is to be taken seriously, and if it is to be able to present a vision of who the gifted student is, then the field of gifted education must first come to agreement on a definition of giftedness that is predicated upon the characteristics of individuals, and not upon the politically correct or politically expedient prototypes which cause gifted education to be so inclusive as to be meaningless.

If principals are to adequately serve gifted learners in their schools, they must be made aware of what the needs of gifted students are, and of how those needs can be met. Principals need clear standards not only of what constitutes
appropriate, high-quality instructional programs for gifted learners, such as those offered by the NAGC and used as the basis for the program quality survey, but also of what constitutes good instructional methodology for the gifted. The field of gifted education must begin to aggressively promote a model of instruction which differentiates not only between gifted students and those who are not, but also between the gifted and the highly gifted. Likewise, the field of gifted education must promote instructional methodologies for the gifted which are appropriate to the gifted, even if those strategies are not beneficial to all other students.

In a similar vein, the field of gifted education must stress that giftedness is more than a head reality—that it is a condition of heart as well. Gifted students have great affective needs, needs not being met adequately in most of the schools in this study. The field must alert educational leaders to the affective aspects of curricular design, of the need of the gifted to associate with others at their cognitive level, of their needs for early career guidance, and of counseling services provided by those who have an adequate understanding of who they are and what they are experiencing. Those in the field of gifted education must raise awareness of the plight of underachievers, at-risk gifted students, and dual-exceptional learners, all of whom represent non-traditional types of giftedness, and which bring distinct affective as well as cognitive needs to the table. Educational leaders must be aware of modes of participant selection that do not exclude non-native speakers,
and that do not screen out potential participants on the basis of current
productivity or behavioral anomalies. The field must champion the rights of all
gifted learners to be served appropriately.

Beyond increasing awareness of standards for gifted programs, the field of
gifted education must offer helpful interpretation of what those standards
represent. It must operationalize the definitions so that principals can look at
what is occurring in their buildings, and can compare it to the standards and see
whether, in fact, the standards are being met. As was seen in this study, there is
the potential for great misunderstanding when standards are obscure or poorly
publicized. Then, having clearly stated the standards and what they translate into
in terms of end products and processes, the field of gifted education must promote
a model of instruction which is both prescriptive and flexible, and which can be
altered to meet the needs of individuals, and it must get this model into the hands
and the daily practice of principals, directors of gifted instruction, and teachers of
the gifted.

If principals are to adequately serve gifted learners in their schools, they
must be made aware that they can make a difference in providing appropriate
services for their gifted learners even within the constraints of tight budgets and
the current concerns for accountability as measured by high-stakes, end of grade
testing. Those serving public schools must be encouraged to require that they be
given authority commensurate with their responsibility for supervision of gifted programs, in order that they may change and improve those programs, and then they must be clearly shown how they can change and improve those programs. Those serving private schools, especially faith/church-affiliated schools, must be encouraged first to recognize, and then to meet the needs of a largely overlooked constituency—their school’s gifted.

All principals must have ready access to the information they need to justify their support for gifted programming, and they must be provided the support to present the needs of the gifted in their schools to those in positions of authority and high-level decision-making, including those at the division, school board, and state level. They must be equipped to facilitate communication among stakeholder groups to build a community of support for gifted students and their needs, and encouraged to involve parents and community members as advocates for the needs of gifted learners.

The field of gifted education must take a more active role in advocating for gifted students at all grade levels in all schools, and in advocating for the right and the responsibility of principals to make the changes necessary in order to meet the needs of their gifted students. It must keep the need for professional development for those who work with the gifted constantly at the fore, and must promote administrative efficacy within gifted programs by encouraging schools and
school divisions to reconsider leadership criteria for principals and gifted program coordinators, and to require those service-oriented leaders to be proficient in their approach to working with those learners and their needs through thorough training, regular refreshment of skills, and expansion of their knowledge base.

Additionally, the field of gifted education must be advocates for adequate funding and resourcing of gifted programs, and for regular evaluation of those programs by persons who can bring to bear "best-practice" standards and make significant recommendations for change, and who can communicate the results of evaluation in a clear and understandable manner so that the community-at-large, as well as the educational community, can recognize and support those who are providing necessary services for the most able of students.

For the field of gifted education, this study raises a disquieting reality. In the schools upon which this study focused, the program needs of the gifted in the majority of non-public schools were not being addressed. While nearly 92% of public schools in this study offered some form of programming for their gifted learners, only about 27% of the private non-church/faith-affiliated, and about 23% of private faith/church-affiliated offered any programming for their gifted population. Of all reported gifted services at the elementary level in the study's geographic area, nearly 85% were offered by public schools. Only 15% of private school students had access to gifted services.
What can the field of gifted education do to remedy this situation? The answer to this question is perhaps the greatest implication which can be drawn from this study: The field of gifted education must actively focus on engaging private schools and their principals, regardless of affiliation, in dialogue which addresses issues critical to the gifted learners in their midst: ① that there are gifted learners enrolled in their schools, ② that their gifted learners have cognitive and affective needs which are different from those of other learners in the school, and which must be addressed to encourage the development of the gifted learners to their maximal potential, and ③ that principals must extend the realm of ways in which their schools meet learner needs by taking active leadership in developing and implementing ways to meet the need of their gifted students, and by acting as advocate and mediator for those students with high-level decision-makers and the school community at large.

**Implications of the Study for Future Research:**

This study both raises questions and suggests topics for future research. All are directly related to the primary question: Is there a correlation between principal self-efficacy and the availability and quality of programs for gifted learners in the principal's school? Though this study found no such consistent correlation, one must ask whether it was because the correlation truly does not exist, or whether it was due to methodological issues.
This study, as noted before, involved a sample from a limited geographical area, and generated a return rate of about 40% overall. Responses from private schools which provide gifted programs was so small that often it was impossible to calculate meaningful statistics. Obviously, a larger study with a representative sample which generated a larger response would do much to answer this first question. Such a study might be conducted in a wider area, and might provide for differing modes of response, including online surveys, or face-to-face meetings with researchers.

Further study should also be focused on the program quality survey. This researcher questions whether it might more effectively measure the quality of programming by allowing for responses across a spectrum from minimal to exemplary indicators, rather than just by indicating a minimal compliance with a basic exemplar. Such changes, when combined with on-site visitations designed to compare the principal's perceptions of program quality with those of the researcher through evaluation of program documents, classroom observation and interviews with program stakeholders, would generate more useful and realistic data for consideration and program evaluation.

This study focused entirely upon elementary school principals—those serving schools whose pupils were in grades K-6. The results of the study therefore represent only the chronologically lower half of school populations. Future study of
middle and high schools in the same geographic area would present an important complement to the data collected in this study, and future study of schools at all levels K-12 in other geographical areas might provide interesting comparisons to this study's findings, as well as answering questions already raised.

This study was conducted in the late spring, just before and during the dismissal of school for the academic year. It is a busy time for principals as they endeavor to "close out" the year, to secure staffing for the next fall, to institute summer programs, and for some, to move to another school. Each of these factors impacts the principal's availability and willingness to respond to surveys, his/her opinions concerning the quality/success of programs within the school, and his/her disposition toward any program. Potentially, replications of this study at other times of the academic year could generate slightly different patterns of data.

No matter what the focus of future research of the issues raised by this study, one factor remains preeminent: More research is necessary. Whether or not a relationship between principal self-efficacy and the quality of programming for gifted learners in the principal's building exists, the nature that relationship must be clearly demonstrated in order the quality of gifted programming to be improved. If the relationship cannot be shown, then this area of inquiry can be disregarded in future studies and plans for improvement of gifted education. But if the relationship can be shown to be positive, then principal self-efficacy must come
onto the field of gifted education's "radar," and principals must be trained in, selected for, and reinforced/rewarded because of efficacious behavior, as well as thoroughly trained in the nature of high-quality gifted programming, if the quality of gifted education is to be improved.
REFERENCES


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*Roeper Review, 9*(1), 4-10.


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# Private Schools in the Hampton Roads Area

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<th>School</th>
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<th>Principal by Grade Level Cluster</th>
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<td>Sr. Inez Theresa</td>
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<td>23451</td>
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<tr>
<td>Stonebridge School</td>
<td>Chesapeake</td>
<td>23321</td>
<td>Mark ?? Art Ricciardi Max Lyons</td>
<td>Christian</td>
</tr>
<tr>
<td>Summit Christian Academy</td>
<td>Newport News</td>
<td>23601</td>
<td>Claude Marshall</td>
<td>Christian</td>
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<tr>
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<td>Richard Anderson</td>
<td>Private 7th Day Adventist</td>
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<td>Lutheran</td>
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<td>23505</td>
<td>Claudette Taylor</td>
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<tr>
<td>Trinity Lutheran School</td>
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<td>Phyllis Sullivan</td>
<td>Society of Friends</td>
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<tr>
<td>The Williams School</td>
<td>Norfolk</td>
<td>23507</td>
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</tr>
</tbody>
</table>
Appendix B

PRINCIPAL SURVEY

DIRECTIONS: For each of the following statements posing a situation, there will be four hypothetical reasons why the situation exists. You are to respond to each reason indicating whether you:

SA — Strongly Agree
A — Agree
U — Unsure
D — Disagree
SD — Strongly Disagree

Darken the circled letters corresponding to your answer.

EXAMPLE: If your school achieves the highest average score on a recently administered achievement test, it would be because

SA A U D SD
a. you possess a natural ability to be an instructional leader
SA A U D SD
b. you put a great deal of effort into emphasizing academic achievement.
SA A U D SD
c. the achievement test used must have been biased in favor of your student population.
SA A U D SD
d. your students have high IQ's to begin with.

This person strongly agreed with the reasons “a” and “d”, but was unsure about “c”. The respondent strongly disagreed that his/her effort would affect the situation posed.

Please be sure to respond to each possible reason. For each statement you should have four responses. It is important that you respond as candidly and as accurately as possible given that the particular situation actually exists.

1 One clarification may be needed. For the purposes of this questionnaire, “natural ability” refers to a competency which is not gained through hard work or training, but is “natural” by virtue of being born with this ability—such as a “natural born leader.” As we have gained through research, leaders generally excel in a particular area (e.g., business marketing as opposed to business managing). In education, “instructional leaders” excel in leading the academic and achievement part of schooling.
1. If the achievement level of your school is high, it would be because
   a. you possess a natural ability to be an effective instructional leader.
   b. as a principal, you put a great deal of effort into emphasizing academic achievement.
   c. the achievement test used to measure the achievement level of your students was too easy.
   d. you were lucky to get a good school.

2. If your school appeared to be strong in a particular skill area such as "Language-Spelling Skills", it would be because
   a. you possess a natural ability to be an effective instructional leader.
   b. as a principal, you emphasize the importance of students acquiring this skill.
   c. the materials used in the classroom covering this skill area were too much like the items on the achievement test.
   d. you were simply lucky in getting kids that happened to be strong in this area.

3. If very few of the students in your school by the end of the year are able to master the basic statewide objectives established for their grade level, it would be because
   a. you do not possess the natural ability to be an instructional leader.
   b. of your lack of effort in emphasizing the importance of all students mastering the basic objectives.
   c. the statewide objectives are unrealistic and too difficult to attain.
   d. you were not lucky enough to get assigned to one of the better schools.

4. If your school, which has a history of being a low-achieving school, increases its achievement level this year to above the norm, this would be because of
   a. your natural ability to be an instructional leader.
   b. your effort in supporting and emphasizing the importance of students' achievement.
   c. a change in the achievement testing, making it easier for your students to succeed.
   d. your being lucky. Recent redistricting brought brighter students to your school.
5. If the achievement level of your school is below the norm it would be because

- you do not possess the natural ability to be an instructional leader.
- you did not put in the effort needed to emphasize high achievement.
- the materials used in the classroom did not emphasize the areas tested by the achievement measure.
- you were not lucky enough to get a school of high achievers.

6. If you received a negative evaluation from your superintendent in the area of instructional leadership, this would be because

- you do not possess the natural ability to be an instructional leader.
- you do not feel this is an important part of your job; therefore you do not emphasize it.
- the evaluation was not fair, with the standards by which you were measured being too difficult for anyone to attain.
- your superintendent just happened to be in a critical mood the day he/she wrote the evaluation.

7. If a new science program is initiated in your school and the students' achievement in this area increases significantly, this would be due to

- your natural ability to be an effective instructional leader.
- the effort you put into promoting the program and assisting teachers in working with it.
- a good match between the objectives emphasized in the new science program and the achievement test.
- your being lucky. Recent redistricting brought brighter students to your school, particularly those having a high aptitude for science.

8. Twenty-five percent (25%) of the students in grades 1-3 were retained and not promoted to the next grade. This rate is higher than any other school in the area. This would be due to

- your lacking natural ability in being an effective instructional leader.
- your lack of effort in emphasizing the need for all students to achieve.
- your school's standards for retention are more rigid than the other schools'.
- your not being lucky enough to get assigned to one of the better schools.
9. If students do well in your classes, it would be because
   a. you have the natural ability to be an instructional leader.
   b. you put a great deal of effort into emphasizing the importance of academic achievement.
   c. the basic material covered is designed so that even the slowest of students can get some right.
   d. you were lucky to get a bunch of kids this year who are smart and self-motivated.

10. Suppose your superintendent commended you on doing a fine job as evidenced by the high level of achievement demonstrated by your students. This would mean
    a. a great deal, because you feel you have a natural ability as an instructional leader in your school.
    b. a great deal, because you have put in a lot of effort and time into promoting and insuring a high level of achievement for all students.
    c. very little, because you suspect the test used to measure the academic achievement of your students was very easy and most should pass it anyway.
    d. very little, because you were simply lucky to get a school where the majority of your students have a high enough IQ which enables them to achieve independently of anything you really do.

11. If your school scores very low in a particular subject area such as math on an achievement test, it would be because
    a. you do not possess the natural ability to be an instructional leader, particularly in the area of math.
    b. you did not emphasize the importance of achievement in this subject area as much as the other subjects.
    c. the math section of the achievement test did not test what was taught.
    d. you happened to get a school whose students do not have the ability to achieve in this area.

12. If 95% of the students in your school are mastering the basic objectives established for their grade level, this would be because
    a. you possess a natural ability to be an instructional leader.
    b. you have emphasized the importance of all students achieving at least the basic objectives before the end of the school year.
    c. the basic objectives were established at such a minimum level as to enable even the slowest of students to succeed in mastering them.
    d. you were lucky to get a school whose student body tends to be very academically abled.

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13. If all students in your school will be promoted this year, this would be because

- a. you possess a natural ability to be an instructional leader.
- b. you have put in a great deal of effort into emphasizing the importance of all students achieving.
- c. the majority of teachers are being more lenient by accepting substandard work from students.
- d. you were lucky to have a good bunch of kids this year in all grades who tended to be very academically motivated.

14. If a new math program is a failure—instead of the students' achievement increasing, it falls lower than before—this would be because

- a. you do not possess a natural ability to be an instructional leader.
- b. you did not put enough effort into supporting the new program.
- c. teachers always resist anything new and therefore did not give it a chance.
- d. you were unlucky in choosing this particular program to try out.

15. If your school, which has a history of being a low achieving school, continues again this present year to score low, this would be because

- a. you do not possess a natural ability to be an instructional leader.
- b. you did not put in the effort to emphasize the importance of increasing students' achievement levels.
- c. the achievement test is just too difficult.
- d. you were not lucky enough to get a school where the kids at least possessed the ability to achieve.

16. If a large percent of the students in your school are doing poorly academically, it would be because of

- a. your lacking the natural ability to be instructional leader.
- b. your lack of effort in emphasizing the importance of academic achievement.
- c. the inappropriateness of tests used in evaluating the students' academic achievement.
- d. your being unlucky in getting a school whose students are low achievers.

Thank you very much for completing this questionnaire!
Appendix C

CONTENT VALIDITY — HILLMAN INSTRUMENT

Examination of the content validity of the Principal’s self-efficacy items indicated the following levels of agreement (as expressed in percentage agreement):

<table>
<thead>
<tr>
<th>Dimension Examined</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>97.92%</td>
</tr>
<tr>
<td></td>
<td>97.40%</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td>93.75%</td>
</tr>
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</table>
Reliability of the Principal's Self-Efficacy Instrument's Original Eight Subscales (expressed as Cronbach's Alpha levels) is as follows:

<table>
<thead>
<tr>
<th>SUBSCALE</th>
<th>ALPHA LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>.80</td>
</tr>
<tr>
<td>Negative</td>
<td>.86</td>
</tr>
<tr>
<td></td>
<td>.85</td>
</tr>
<tr>
<td>Positive</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td>.85</td>
</tr>
<tr>
<td>Negative</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>.85</td>
</tr>
</tbody>
</table>
Appendix E

RELIABILITY OF COLLAPSED SUBSCALES:
HILLMAN INSTRUMENT
CRONBACH'S ALPHA LEVELS

Reliability of the Principal’s Self-Efficacy Instrument’s Four Subscales Collapsing the Fixed/Variable Dimension (expressed as Cronbach’s Alpha levels) is as follows:

<table>
<thead>
<tr>
<th>SUBSCALE</th>
<th>ALPHA LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>.91</td>
</tr>
<tr>
<td></td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>.85</td>
</tr>
</tbody>
</table>
Programming for high-ability learners — the gifted/talented — varies widely from place to place. In an effort to determine the type of programming most prevalent in this area, I am surveying principals of public and private elementary schools concerning the options for gifted students in their schools. Your input on this matter is most appreciated. A compilation of the results of this survey will be sent to you if you have indicated the desire to receive the information on your ‘IF IVE SENT IT BACK!’ card. Thank you in advance for your most helpful participation.

**School/Demographic Information:**

Number of students: 1-150  151-300  301-500  501 or more
Primary focus: General Education  Special Education  Gifted Magnet
School Location: Urban  Suburban  Rural
Number of years you have been principal of this school: New  1  2-3  4 or more
Affiliation: Public  Private—Not Church/Faith Affiliated  Private—Church/Faith Affiliated
*If church/faith affiliated, is your school’s affiliation: Evangelical (Baptist, Pentecostal, Alliance)  Roman Catholic  Episcopal  Lutheran  Hebrew  Moslem  Other_____

1. **Is there specific programming for high ability learners — gifted/talented students — in your school?**
   - Yes. We offer programming for gifted students in grades _____ through _____.
   - Our program has been in place for ____ years.
   - Yes  No  I feel informed about gifted education and our program.
   - Yes  No  There is a per-pupil budget for gifted education services. ($____ per pupil)
   - No, we do not offer programming for gifted students.

2. **Do you believe that gifted programs...**
   - Yes  No  ...are necessary to develop gifted students’ abilities?
   - Yes  No  ...provide a basis for raising the instructional level of all classrooms?

   If your school provides gifted programming, please continue. If not, please skip to question [NP] on the last page

3. **Our school provides gifted programming through...**
   - Yes  No  Integration in heterogeneously grouped classrooms.
   - Yes  No  There is a resource teacher who works with the classroom teacher to help design and/or deliver instruction to gifted learners.
   - Yes  No  a “FULL-OUT PROGRAM” which allows students to leave their heterogeneously grouped classes to participate in enrichment activities with other gifted learners.
     - Gifted students meet daily.  weekly.  other _____________.
     - Each meeting is 30 minutes or less  31-60 minutes  more than 60 minutes.
     - Participants meet in our school building  at another site.
   - Yes  No  a FULL-TIME PROGRAM, homogeneously grouped for specific subjects.
   - Yes  No  a PART-TIME PROGRAM, homogeneously grouped for specific subjects.
   - Yes  No  a FULL-TIME PROGRAM, homogeneously grouped for all subjects.
Our gifted program provides...

- **Enrichment**—opportunities to engage in studies which extend the normal curriculum, or to engage in "creative" studies which complement the curriculum at the chronological grade level of the student.
- **Content enrichment**—opportunities to engage in studies which extend the normal curriculum by providing content at the cognitive (rather than chronological) level of the learner at high levels of complexity and substantive depth.
- **Acceleration**—"compression" of curriculum so as to quicken the pace of the learning process by deleting instruction in skills/concepts already mastered.
- **Differentiation**—teacher modification of general education curriculum to accommodate gifted learner needs in a heterogeneously grouped setting.
- **Grouping**—homogeneous clustering of gifted learners (according to level of ability) for one or more classes each day.
- **Counseling and guidance**—specific professional services to meet gifted students’ social/affective and education/career guidance needs.

Concerning our program’s design...

- Gifted programming services are accessible to all gifted learners.
- Funding for gifted education is equitable when compared to the funding of our other educational programs.
- Our gifted program is submitted for outside review on a regular basis.
- Our gifted program is guided by a clearly articulated philosophy statement and accompanying goals and objectives.
- Our gifted program is a part of a continuum of services in our across grades pre-K-12.
- Our gifted program is articulated with the general education program.
- Appropriate gifted educational opportunities are provided in the regular classroom, a resource classroom, a separate location, an optional voluntary environment.
- Flexible grouping of gifted learners is an integral part of gifted education programming.
- Both existing and future school policies include provisions for the needs of gifted learners.

Concerning our program’s curriculum and instruction...

- Our curriculum and instructional adaptations follow the district’s model.
- Instruction, objectives, and strategies for gifted students are differentiated from those offered in the regular classroom.
- Teachers are responsible for differentiating, replacing, supplementing, and/or modifying curricula to facilitate higher level learning goals.
- We have established means for demonstrating proficiency in essential regular curriculum concepts and process in order to facilitate appropriate academic acceleration.
- When gifted learners demonstrate proficiency in basic skills and knowledge, they are provided with alternative challenging educational opportunities.
- The instructional program for gifted learners consists of advanced content and appropriately differentiated teaching strategies to reflect their accelerative learning pace and advanced intellectual processes.
- We offer diverse and appropriate learning experiences consisting of a variety of curricular options, instructional strategies, and materials.
- We provide flexible instructional arrangements (e.g., seminars, resource rooms, etc).
**Concerning our program’s way of nurturing the socio-emotional development of participants...**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted learners, because of their unique socio-emotional development, are provided with guidance and counseling services by a counselor who is familiar with the characteristics and socio-emotional needs of gifted learners.</td>
<td></td>
</tr>
<tr>
<td>Gifted learners are provided with career guidance that is consistent with their unique strengths, and appropriate to their unique needs.</td>
<td></td>
</tr>
<tr>
<td>Gifted learners who are placed at-risk have special attention, counseling, and support to help them realize their full potential.</td>
<td></td>
</tr>
<tr>
<td>Gifted learners are provided with affective curriculum as part of differentiated curriculum and instructional services.</td>
<td></td>
</tr>
<tr>
<td>Gifted students who are underachieving are not released/exited from the gifted program because of related problems.</td>
<td></td>
</tr>
</tbody>
</table>

**Concerning our program’s method of selecting participants...**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>We disseminate information regarding the characteristics of gifted students to appropriate staff members at least once each year.</td>
<td></td>
</tr>
<tr>
<td>Parents are provided information regarding an understanding of giftedness and student characteristics.</td>
<td></td>
</tr>
<tr>
<td>Our initial screening pool of potential recipients of gifted education services is comprised of all our school’s students.</td>
<td></td>
</tr>
<tr>
<td>Nominations for gifted services are accepted from any source, including (please check any which apply) teachers, parents, the student him/herself, peers, community members, and/or others.</td>
<td></td>
</tr>
<tr>
<td>Language-dependent (i.e., verbal) assessment instruments measure the capabilities of students with provisions for the language in which the student is most fluent, whenever possible/available.</td>
<td></td>
</tr>
<tr>
<td>Assessments are culturally fair.</td>
<td></td>
</tr>
<tr>
<td>We articulate the purpose(s) of student assessments consistently across all grade levels.</td>
<td></td>
</tr>
<tr>
<td>Student assessments are sensitive to the current stage of talent development.</td>
<td></td>
</tr>
<tr>
<td>An assessment profile is developed for each child to evaluate his/her eligibility for gifted education programming services.</td>
<td></td>
</tr>
<tr>
<td>The student’s assessment profile reflects the unique learning characteristics and potential and performance levels of the student.</td>
<td></td>
</tr>
<tr>
<td>No single assessment instrument or results deny a student eligibility for gifted programming services.</td>
<td></td>
</tr>
<tr>
<td>All assessment instruments provide evidence of reliability and validity for the intended purposes and target students.</td>
<td></td>
</tr>
<tr>
<td>Our school’s gifted programming guidelines contain specific procedures for student assessment at least once during the elementary grades, and are part of district guidelines which require additional assessments at least once in middle school, and again in high school.</td>
<td></td>
</tr>
<tr>
<td>Our school assesses students more than once during the elementary grades for possible participation in gifted programs. (If YES, when? ________________________)</td>
<td></td>
</tr>
<tr>
<td>Our program provides specific procedures for retaining and releasing/exiting students, and offers guidelines for parent appeals.</td>
<td></td>
</tr>
</tbody>
</table>
Concerning the professional development of our staff, especially gifted programming providers...

- **Yes** ☑ No  All school staff have been made aware of the nature and needs of gifted students.
- **Yes** ☑ No  Teachers of gifted students must attend at least one professional development activity a year designed specifically for teaching gifted learners.
- **Yes** ☑ No  All personnel working with gifted learners must be certified to teach in the area to which they are assigned, and must be aware of the unique learning differences and needs of gifted learners at the grade level at which they are teaching.
- **Yes** ☑ No  All specialist teachers in gifted education must hold or be actively working toward a certification (or the equivalent) in gifted education in the state in which they teach.
- **Yes** ☑ No  Any teacher whose primary responsibility for teaching includes gifted learners, must have extensive expertise in gifted education.
- **Yes** ☑ No  School personnel are released from their professional duties to participate in staff development efforts in gifted education.
- **Yes** ☑ No  School personnel are allotted planning time to prepare for the differentiated education of gifted learners.

Concerning the administration and management of our program...

- **Yes** ☑ No  Our designated coordinator of gifted education, in order to be deemed appropriately qualified, has completed coursework or staff development in gifted education and displays leadership ability.
- **Yes** ☑ No  Our gifted education program creates linkages between general education and gifted education services.
- **Yes** ☑ No  Gifted programming staff establish on-going parent communication.
- **Yes** ☑ No  Our gifted program has established and utilizes an advisory committee that reflects the cultural and socio-economic diversity of the school (and/or division's total) student population, and includes parents, community members, students, and school staff members.
- **Yes** ☑ No  Our gifted education programming staff communicate with other on-site departments, as well as other educational agencies vested in the education of gifted learners (e.g., other schools/divisions, school board members, state department of education, etc.)
- **Yes** ☑ No  Our program is provided with resources to support its operations.
- **Yes** ☑ No  Technological support is provided for gifted education programming services.
- **Yes** ☑ No  Selections in our school's library reflect a range of materials including those appropriate for gifted learners.

Concerning how our program's value and impact are evaluated...

- **Yes** ☑ No  The information which we collect reflects the interests and needs of most of our constituency groups.
- **Yes** ☑ No  Our school division provides sufficient resources for program evaluation.
- **Yes** ☑ No  Those who conduct our program evaluations are competent and trustworthy.
- **Yes** ☑ No  The design for evaluating our program addresses whether or not our services have reached their intended goals.
- **Yes** ☑ No  The instruments and procedures that we use for data collection are valid and reliable for their intended use.
- **Yes** ☑ No  We utilize ongoing formative and summative evaluation strategies to promote substantive program improvement and development.
- **Yes** ☑ No  We hold individual data confidential.
- **Yes** ☑ No  The reports of our program evaluation results are presented in a clear and cohesive, written format.
Responsibility for the supervision of gifted programming at our school, and for determining the local (i.e., building) level of support for it is vested in each of these to the degree indicated...

<table>
<thead>
<tr>
<th>Option</th>
<th>Supervision</th>
<th>Local Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>No</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

Resource teacher

Board member

Other

I believe that this is how stakeholders would rate our school’s gifted program...

- Me (principal)...
- Teachers in general...
- Teacher(s) of the gifted...
- Parents of the gifted...
- Program participants...
- Community in general...

I would like to see gifted programming at our school...

- remain as it currently is?
- be decreased? If so, how?
- be increased? If so, how?
- Are there thoughts/observations/concerns which you have about gifted programming that you would like to share?

You have completed the program survey at this point.

Thank you for participating!
If your school does not currently offer a program for high-ability/gifted learners, with which of the following statements do you most closely agree?

- There is not a need for a specific program for high-ability/gifted learners at my school.
  - We already have a schoolwide enrichment program.
  - We employ a multiple intelligences approach.
  - All our students are gifted, and our curriculum is structured to meet their needs.
  - We do not have “gifted” students at our school.
- Currently, we do not have additional resources to implement a program for the gifted such as space, curricular resources, personnel, funding.
- We will be implementing a program for high-ability/gifted learners at my school. We plan on starting it this fall. Within two to three years.
- We are considering implementing a program for high-ability/gifted learners at my school. We are in the initial, mid, final stages of our process.
- I would like to implement a program for high-ability/gifted learners at my school.
  - I have yet to discuss it with the other decision-makers.
  - I have discussed it with the other decision-makers. Their feedback was positive, non-committal, negative.
- Are there thoughts/observations/concerns which you have about gifted programming that you would like to share?

Thank you for participating!
Appendix G

Principals' Comments

• I would like to include the performing arts.

• A new gifted plan was recently proposed and will be implemented next year. It is a five year plan with summative evaluation occurring in the fifth year. The intent of the plan is to train all classroom teachers in gifted instruction and collaboration with our building-based gifted teacher.

• Full-time resource teachers to work with the staff. I have a concern about lack of support both fiscally and adequately staffing with support personnel. My school has implemented a cluster model of servicing gifted students.

• Grade 3 students attend lab school.

• To include more minority students and teachers.

• Have a gifted instructor assigned to each school to work with classroom teachers K-3.

• Include grade 3 in lab school with the 4th and 5th graders.

• We are an at-risk school in that a majority of our students are on free/reduced lunch. My staff has been inserviced on the at-risk gifted learner and what to look for when trying to identify or refer these students for the gifted program. Here are my concerns: when you have only three teachers on grade level—one is the gifted cluster class—you often have the remaining two classes with low to average learners!

• Resource teachers travel to all...elementary schools providing quarterly pull-outs over a two week period each visit. I find this sporadic approach inadequate. Grades four and five go to an alternate location and are served by two teachers weekly. The class size, however, is far too large in my opinion (more than forty students). I would like to see community partnerships with businesses and/or colleges provide extended apprenticeship experiences, in an area of interest identified by the child, become a part of the program.
• Come more often (currently one day per week). Our survey of our patrons said they like coming here but also like their community schools. We expected more to say they wanted to come here five days per week as we hear that often. Many did say this, but a few more said they like the combination.

• More reflective of minority students.

• We have interest in becoming a magnet school.

• Work with classroom teachers to give added ideas, etc. Once our students in grades three through five are found eligible for the gifted program, they leave our school to attend a full time program. We service students that are seen as "high ability" with a one or two class per week pull out program.

• Add extra math programs.

• Our gifted program will change to provide onsite instruction... We will go through a year of training trainers and teachers how to teach, identify, and maintain the gifted learner. The gifted department recently was moved under the category of special & gifted students department.

• ① More resource hours. Resource teachers full time rather than shared with other schools. ② More assistance to teachers in differentiating instruction for gifted students as needed. ③ Subject area gifted programs.

• Have more inservice for whole staff instead of just cluster teachers.

• Expand to borderline students.

• We are adding a second gifted resource teacher.

• More staff in each building.

• More training in differentiating instruction. Our system s at the infancy stage of gifted education. We are headed in the right direction with the addition of gifted specialists. I believe progress will accelerate as more impetus is given to gifted education and the public is becoming more aware of the opportunities.

• More support.

• More classroom involvement.

• Increase financial support.
• Daily [interaction].

• Decrease [magnet programming] by more pull-out programs.

• In-class models with more general ed teachers trained. Although I believe the perception [of stakeholders] is "adequate," I believe we could enhance the program with an in-class model [utilizing] strategies and techniques that would benefit all students (general and special ed). Inservices and training is left to the principals [and] is inconsistent across the school system. Parents are going to steer the way for changes.

• More intense and more creative.

• Extended time for more than once a week.

• More emphasis on talented gifted. Need more of a diverse ethnicity in teachers of our gifted students.

• More instructional time. More funding.

• [Add] full-time gifted teacher.

• More than one-day-per-week program. Our district is planning to dismantle our program as it has been for several years. We are preparing to offer services to our students within their heterogeneously grouped classrooms, providing support and training to the teacher who will have all the students in their classroom.

• More training for teachers.

• The identification process is sometimes confusing: i.e., some students who appear to be highly qualified for gifted services do not make it into the program and no explanation is given beyond "they did not qualify."
VITA

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